

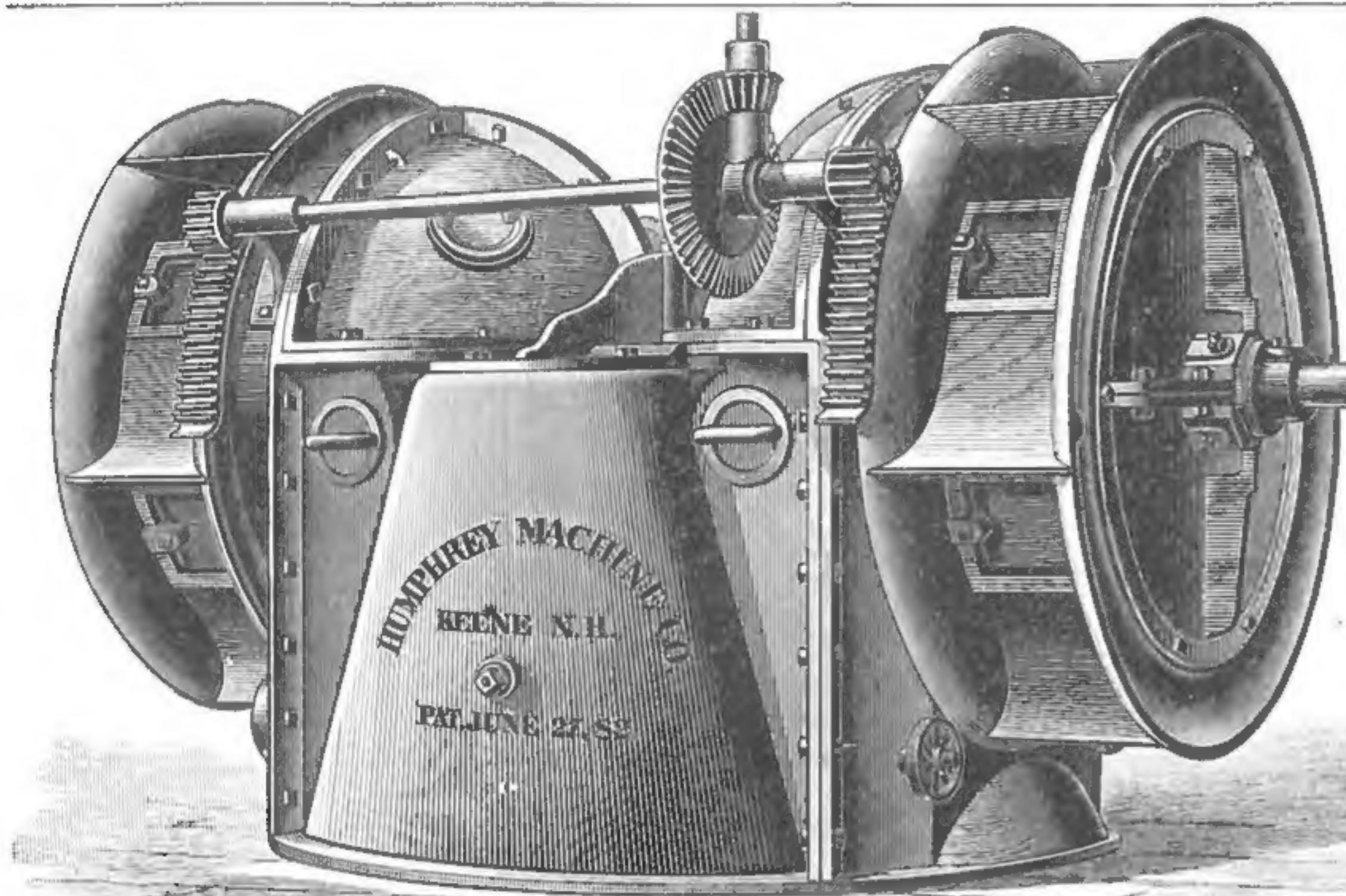
CHRONICLE OF THE GRAIN AND FLOUR TRADE

PUBLISHED EVERY MONDAY MORNING.

VOL. XXII. No. 19.

BUFFALO, N. Y., JULY 7, 1890

\$1.50 PER YEAR.

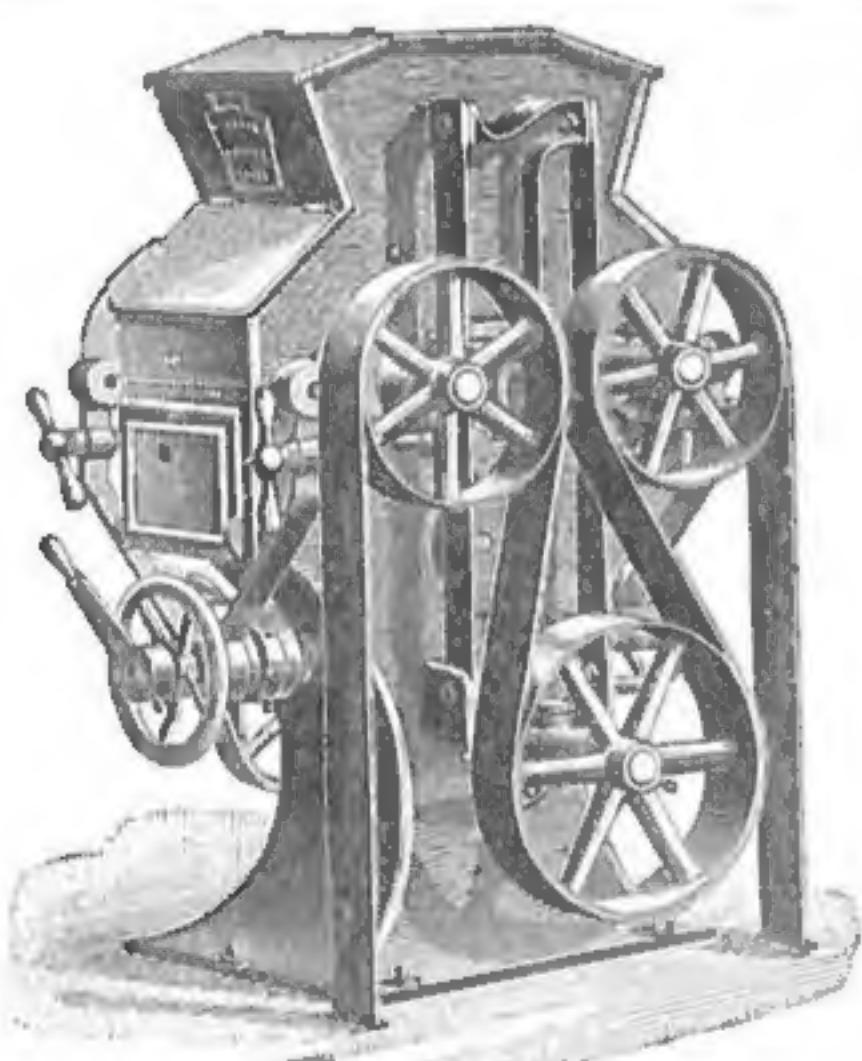


THE X-L-G-R ^{OR} IMPROVED
CIRCUMSHOT
Water Wheel

On Horizontal Shaft. Saves cost, annoyance and loss of power incident to use of gears. Affords more available power from water applied at full or part gate than any other. The cheapest, best and most desirable Water Wheel yet produced.

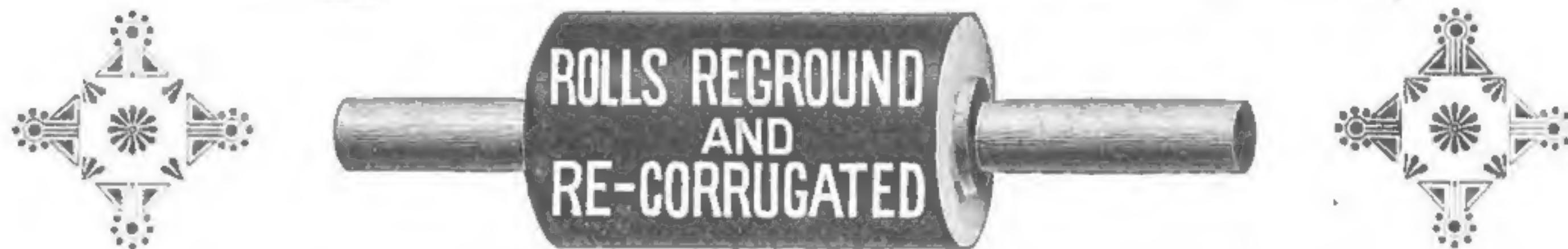
EFFICIENCY,
ECONOMY and EXCELLENCE FULLY GUARANTEED.

Humphrey Machine Co.
KEENE, - - N. H.



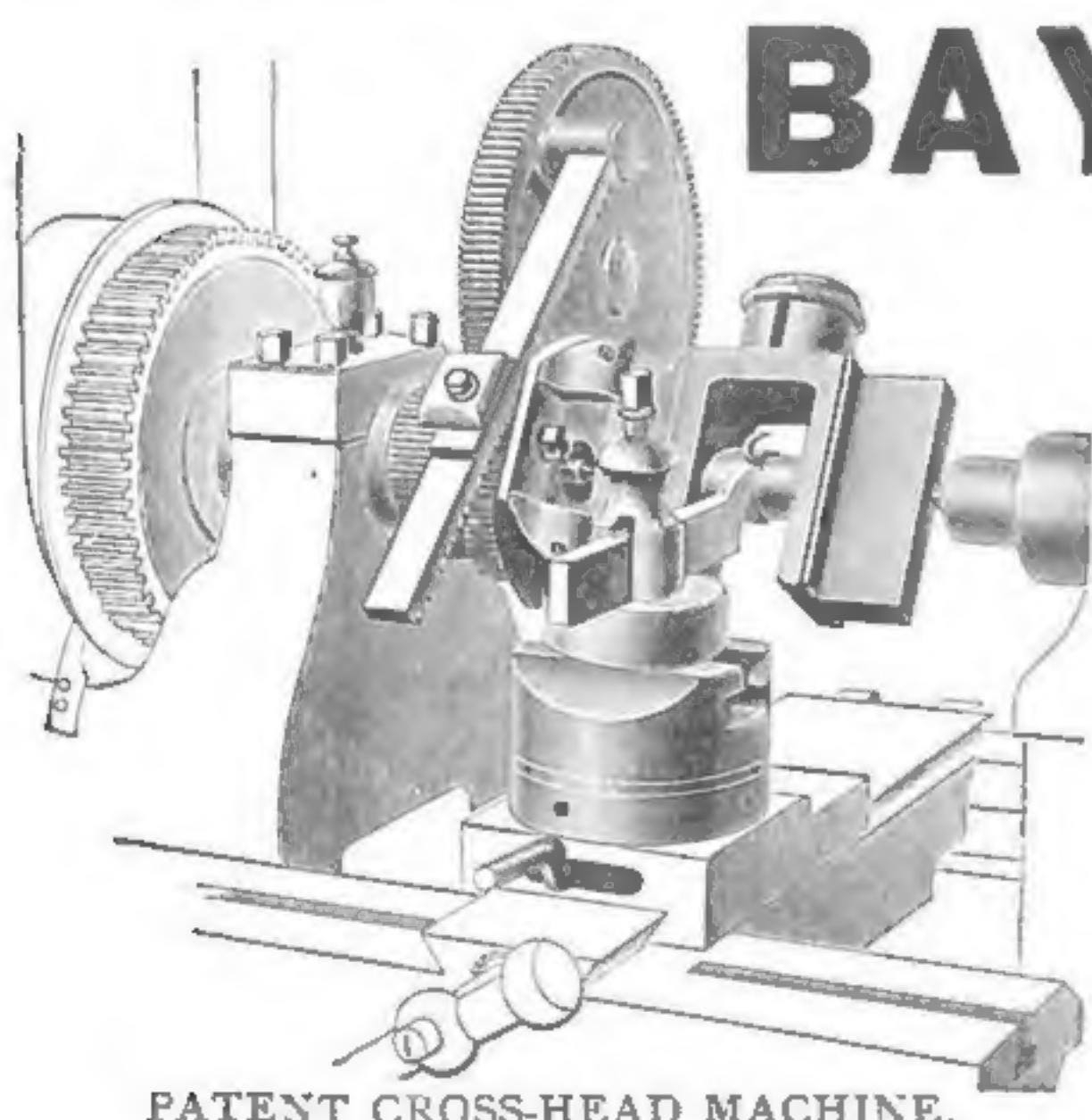
'KEystone' 4-ROLLER MILL.

Flour Mills. Corn Mills. Hominy Mills.
Unparalleled Results.



By the "Keystone" Roll Grinder, Manufactured by Ourselves. The only machine that will Grind Rolls Absolutely True.

ADDRESS THE J. B. ALLFREE CO., 76 to 78 Shelby Street, INDIANAPOLIS, IND.



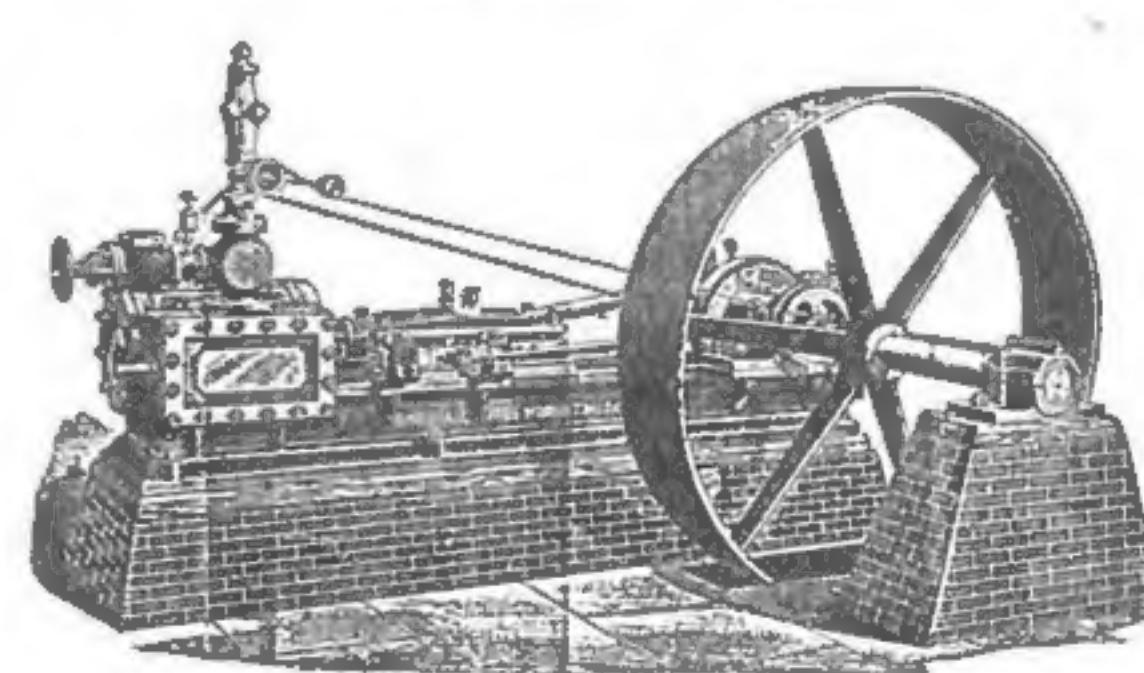
PATENT CROSS-HEAD MACHINE.

BAY STATE IRON WORKS

—MANUFACTURERS OF—

Engines, Boilers & Hoisting Machines

Also the Patent Cross-Head Machine and Acme Cube Pipe Tongs. We make either Center or Side Crank Engines, on same bed. Make engines from 5 to 250 Horse-Power. Have over 3,500 Engines and Boilers and over 1,000 Hoisting Machines in use, and all giving good satisfaction. Send for Catalogue and Prices.



HORIZONTAL ENGINES.

Noble & Hall, Box 462, Erie, Pa.

OFFICE OF
CASE MANUFACTURING COMP'Y
COLUMBUS, OHIO.

The Case Roller Mills. Over 14,000 Pairs in Use.

PLEASE READ OUR DESCRIPTION OF THEM, EVERY STATEMENT OF WHICH IS ABSOLUTELY TRUE.

PLEASE READ WHAT MILL OWNERS SAY ABOUT THEM.



The accompanying cut is a correct illustration of our latest improved Four Roller Mill. For fine work, great durability, simplicity, and general excellence, they stand "head and shoulders" above all others.

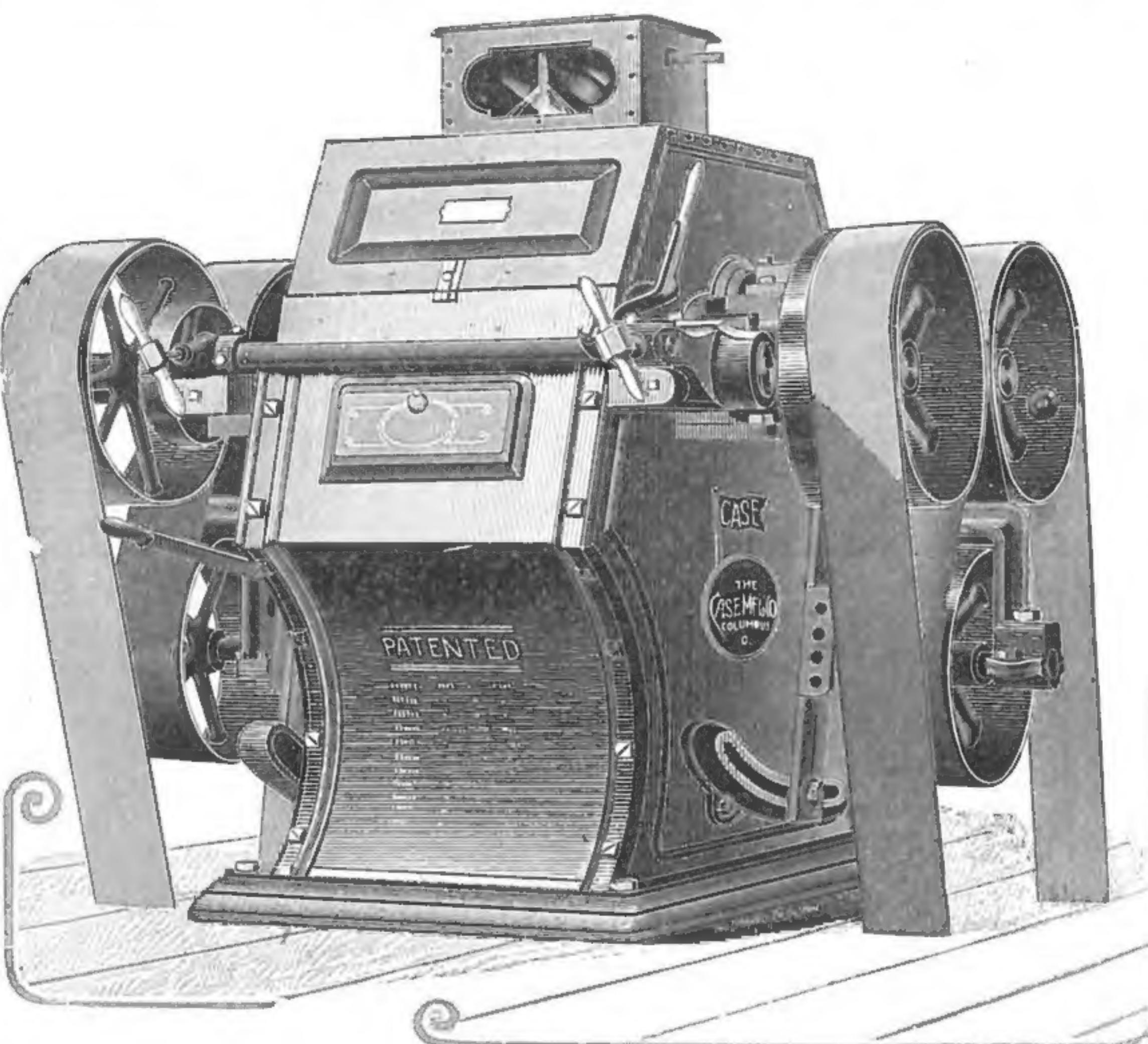
The frame is of iron with a heavy iron base.

The wood-work in top is of select cherry and black walnut, carefully shellacked and varnished.

The handles of adjusting screws and levers are finely nickel plated.

The joints are tight and dustless.

The adjustments easy, simple and perfect.



The roll bearings are wide and finely babbited.

The belt drive is positive—no little short belts to slip.

The door for examining stock is a great convenience.

The arrangement for leveling rolls, simple and accurate.

The rolls can be thrown apart their entire length by one movement of the lever, and brought back again to original position, requiring no re-setting or experimenting.

Each machine is provided with our AUTOMATIC VIBRATING FEED, which requires no attention, and never fails to spread the feed the entire length of the rolls.



Please Read These Testimonials.

LITCHFIELD MILLING CO., MANUFACTURERS OF FLOUR.
LITCHFIELD, ILL., Sept. 14, 1889.

Case Manufacturing Co., Columbus, Ohio.

GENTLEMEN: We are in receipt of your favor of the 11th inst., and in reply would say we have twenty CASE AUTOMATIC FEEDS on our Dawson and Allis Rolls, and we are greatly pleased with them. We have tested the Feeds thoroughly on different materials, and find they work as well on bran and germ and other soft materials, as they do on middlings. We have derived great benefit from the use of them, and can cheerfully recommend them to the milling fraternity. Yours truly,

J. C. EDWARDS, General Manager.

OFFICE OF A. J. MILLER, PROPRIETOR WHITE ROSE MILLS.
DEALER IN FLOUR, GRAIN AND MILL FEED.
METAMORA, IND., Nov. 19, 1889.

Case Manufacturing Co., Columbus, Ohio.

GENTLEMEN: Your Feed arrived O. K., and placed it in working order in a very short time. You have furnished me a daisy Feed. After regulating your Feed, it needs no more attention. It pays for itself in one week over the "Roller Feed" in cleaning up the

stock, and also insuring the superiority at same time. I forward you the amount of bill.

Yours truly, A. J. MILLER.

TREZEVANT, TENN., Feb. 27, 1889.

The Case Manufacturing Co.

GENTLEMEN: We have five double stands of Rolls with Roller Feeds on all of them. A short time ago one of your agents induced us to try one of your Automatic Shaker Feeds. We find that it works much better than the Roll Feed, distributing the material the whole length of the Roll. We heartily recommend your feeds to any one wishing to put in new machinery.

Respectfully yours, FUQUA, HARRIS & CO.

W. C. MANSFIELD & CO., MERCHANT MILLERS.
CLEVELAND, TENN., Aug. 29, 1889.

Case Mfg. Co., Columbus, O.

GENTLEMEN: If we were to build a hundred mills, we would not permit any other than the "CASE ROLL" to enter them. They are the best roll on earth. Yours truly,

W. C. MANSFIELD & CO.



CHRONICLE OF THE GRAIN AND FLOUR TRADE

PUBLISHED EVERY MONDAY MORNING.

VOL. XXII. NO. 18.

BUFFALO, N. Y., JULY 7, 1890.

\$1.50 PER YEAR.

COMPARISON of the Minneapolis convention of the Millers' National Association with the Fort Wayne convention of the Tri-State Millers' Association must suggest unpleasant reflections to the Minneapolis "Yahoo." The fact that individuals can secure from railroads recognition denied to the National must suggest unpleasant reflections to the National corporal's guard on their impotency and lack of influence.

THOSE of our contemporaries who have been claiming that the National really intended to do better, and who somewhat severely scolded THE MILLING WORLD for its inability to believe their claim, and for its honesty in saying what it believed and believes, may now see that THE MILLING WORLD was right in insisting that nothing new was intended. One miller writes: "I went to Minneapolis. I am glad I did, for I saw the great milling town and had a good time. More than that, I saw the so-called Millers' National Association on dress parade, and a regular Mulligan's Guard it is, too! It's all name and gas, no body to speak of, and it hangs at loose ends all over. I went to several of the sessions, and that's the only thing I regret. It was time wasted. I don't believe the body will try to hold a convention in 1891."

WHERE will the next convention of the National be held? Already this question is asked. It is hinted that the southern element in the organization is prepared to make a strong pull to have the meeting of 1891 held somewhere in the South. Nashville, Tennessee, is said to be desirous of entertaining the millers, and doubtless the people of that city would exert themselves to entertain in royal style. It is to be feared that Nashville, or any other southern or winter-wheat town, will stand a very poor show for drawing the prize. The National is now a close corporation of spring-wheat millers, and the natural tendency will consequently be to hold the conventions in the spring-wheat sections. Winter-wheat millers may be very well in their way, but the Minneapolis spring-wheat clique does not care to further winter-wheat interests too greatly, and that clique can vote more flour-barrels than any other clique in the National. Nashville may bid for the convention, and she can offer the traditional banquet and enticing trips to Luray Caverns, to Mammoth Cave, to the Natural Bridge, to Lookout Mountain and to a score of other romantic and historic spots, so it would be possible for her to make a strong bid if men, and not flour-barrels, had the votes. Perhaps those who are agitating the question of locality at this early day would do well to wait for developments. There may be no need of a place for a convention in 1891. No convention may be held.

THE amusing editor of an agricultural cotemporary furiously denounces us for attacking the spurious and putrid rot talked by amateur scientists and bran-faddists on the subject of bran as a food, and asks for our authority. If he had read his MILLING WORLD carefully for several years he would not be so ignorant of the subject, as he would have read in its pages the scientific testimony of such men as Jago, Thoms, Richardson, Mege Mourie and many others equally conspicuous, who have demonstrated beyond a doubt the unfitness of bran for human food, for two very import-

ant and essential reasons: 1. The human system has been shown to be incapable of assimilating over $\frac{1}{17}$ of one per cent. of the bran taken into the stomach. Our amusing cotemporary, who mistakes the heat of his own dense ignorance for a sufficient knowledge the subject, may compute the amount of sustenance his flambergasted stomach and alimentary canal can extract from a ton of bran. 2. Besides being incapable of digestion by man, bran acts as an irritant. Magendie died in 1855, and the world has grown wiser in things chemical since his death. His mooted experiments in fattening dogs on bran and killing others with white flour will hardly count to-day among the men who have exhaustively studied the effects of bran on the human system. On this point we refer our amusing cotemporary to Professor William Jago, the eminent scientist, who says: "Another argument is that 100 pounds of wheat yield 100 pounds of wheat meal, but only 70 to 75 pounds of flour, hence a considerable waste of food stuff. This would apply if bran and other offals were absolutely wasted, but as a matter of fact food has to be provided for cattle, and bran and wheat offals generally form exceedingly valuable food for ruminating animals, whose digestive organs are specially adapted for the assimilation of substances of this description. There is no doubt that cattle live and thrive on bran as an article of diet, but can the same be said of human beings? One undoubted effect of its administration in excess is to cause diarrhoea, while in lesser quantities, through undue hastening of peristaltic action, it causes the ejection of food from the body before the whole of its nutritive constituents has been absorbed." Of course our amusing cotemporary will refuse to give his constituents the benefit of Prof. Jago's conclusion, which is based on repeated exhaustive experiments, not on dogs, but on men. The mere bran-faddist must go back from 35 to 50 years to find comfort and support for his fad. The bran-faddist insists that the human needs sulphur and must take it in wheat, in bran. It may be news to such ignoramus to learn that sulphate of copper is always present in wheat bread, and that the proportion is nearly the same, whether the bread be white or bran bread. Jules Van den Berghe demonstrated, only last May, that 231 grammes of white bread yielded .0029 grammes of sulphuret of copper, while 226 grammes of whole-meal or bran-and-all-the-dirt bread yielded .0027 grammes of sulphuret, showing the emptiness of the assertion that clean flour lacks the essentials of food, and that dirty and indigestible flour is sure to contain the essentials in available form. But the amusing bran-faddist is so wedded by the band of ignorance and fetishism to his indigestible, non-assimilable, bowel-rasping, diarrhoea-inducing, life-shortening husks that it is useless to place genuine scientific data, experiments and conclusions before him. He simply can not see their force. He prefers the comical superstitions of the blistering, bleeding and "yarb tea" dosing to the clearer science of these progressive days. Hence our smiles. We wonder if our bran-brained friend swallows Magendie's solutions of arsenic and other horrible poisons along with his alleged murder of the dogs by white flour. We continue to smile at our agricultural cotemporaneous Sir Furibundus.

The DAWSON ROLL WORKS CO.

FOUNDERS & MACHINISTS,

—MANUFACTURERS OF THE—

Dawson Roller Mills

—AND FURNISHERS OF—

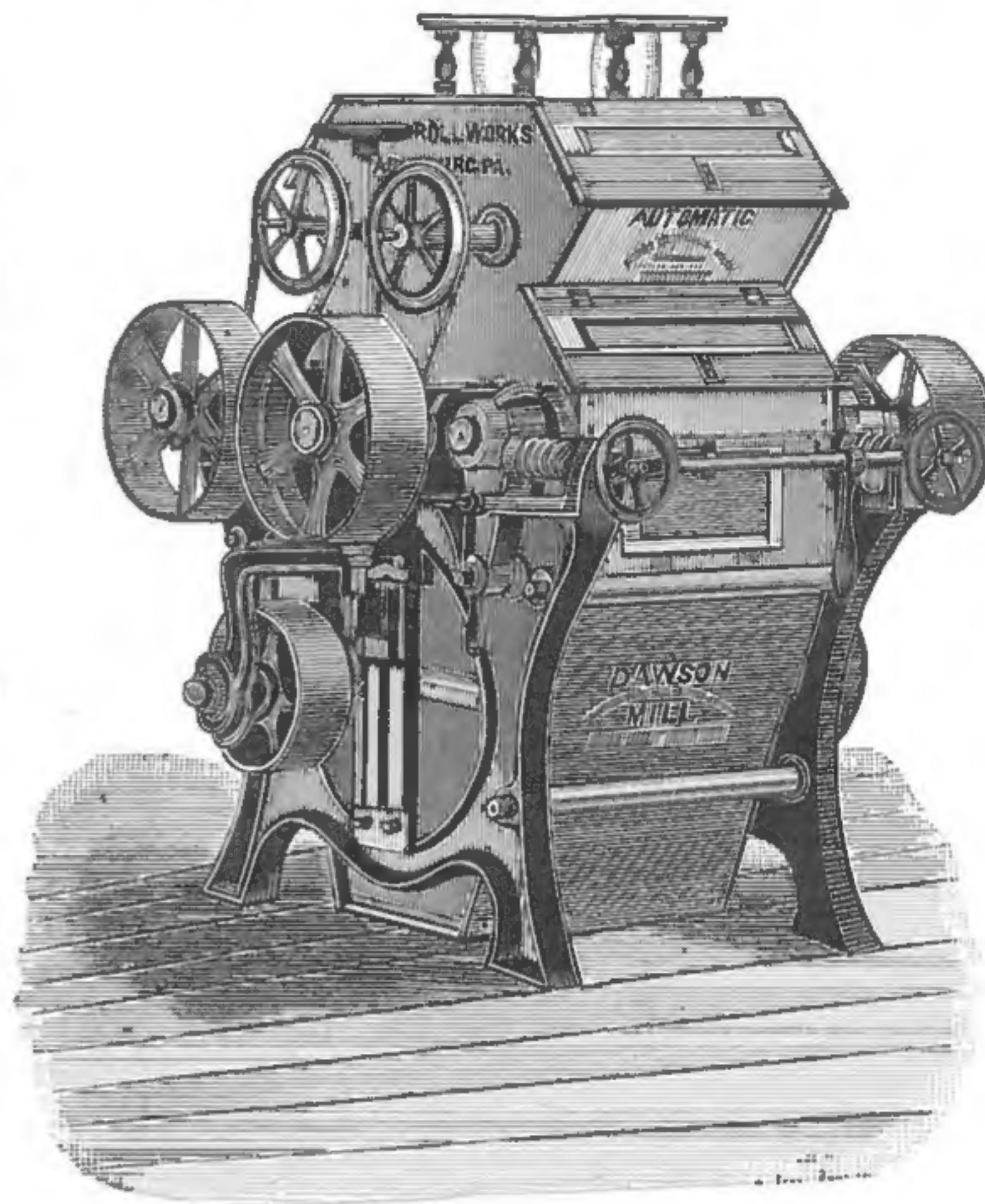
CHILLED IRON ROLLS

WITH DAWSON PATENT CORRUGATION.

ALL STYLES OF FLOUR MILL ROLLS RE-GROUND AND RE-CORRUGATED WITH ANY FORM OF CORRUGATION.

We have had large and extended experience in grinding and corrugating chilled rolls for milling, and have one of the largest and most improved plants in the country for this work, which enables us to meet the most exacting requirements of the trade promptly.

ORDERS AND CORRESPONDENCE SOLICITED.



DAWSON ROLL WORKS CO.

South and Short Streets,

HARRISBURG, PA.

CORNISH'S (OLD ESTABLISHED) ORGANS AND PIANOS!

THE ONLY FIRM OF MANUFACTURERS IN AMERICA
selling direct to Consumer. From Factory to Family at Wholesale Rates on Terms to suit Purchaser.

\$75 ORGAN { EXACTLY LIKE THIS CUT } **\$50**
\$15.00 CASH After ten days' trial, and the balance of price, \$35, to be paid in 7 monthly installments of \$5 each. OR IF CASH IS SENT WITH ORDER, WE WILL SPECIALLY ACCEPT \$45.00.

CORNISH'S Specially designed Cabinet Organ, Style "Cano-piella," No. 10,000, contains 3 sets Orchestral toned Resonator Pipe Quality Reeds; 5 Octaves; 10 Solo Stops; 2 Octave Couplers (Bass and Treble); 2 Knee Swells and all late improvements. Dimensions.—65 in. high, 48 long, 21 wide.

WARRANTED FOR TEN LONG YEARS.

SOLID WALNUT CASE, HIGHLY FINISHED. Handsome Steel and large Instruction Book, making a Complete Musical Outfit.

HOW TO ORDER. Send a reference as to your responsibility from any Banker, Postmaster, Merchant or Express Ag't, and Organ will be shipped at once on Ten Days' Test Trial, and if not, after trial, satisfactory, you can return it and we will pay freight charges both ways. **YOU RUN NO RISK.**

REFERENCES.—FIRST NATIONAL BANK, WASHINGTON, N. J., any Commercial Agency in the U. S., and thousands of persons who for the last 20 years have purchased Instruments of our manufacture.

CORNISH'S GRAND, SQUARE PIANOS AND UPRIGHT

Magnificent New Designs, finest materials, wholesale prices, upon terms to suit all purchasers. Shipped to any part of the civilized world, on free test trial.
NO MONEY REQUIRED UNTIL YOU ARE SATISFIED.

We want every reader of this paper to WRITE TO-DAY for our 20 pp. Illustrated Catalogue. YOU CAN SAVE MONEY. WRITE whether you want to buy now or not. Our Catalogue will interest you and you can get it for nothing.

Advertiser: CORNISH & CO. (OLD ESTABLISHED AND RELIABLE) WASHINGTON, NEW JERSEY.

Sometimes Corrugated Iron is represented to be "just as good as" our Patent Edge Corrugation.

While this is complimentary to our material, unfortunately it does not work out well in practice.

The only Corrugated Iron that can be recommended for roofing is manufactured by

The Cincinnati Corrugating Co.
PIQUA, OHIO.

"ELECTRIC" BELT DRESSING.

A WONDERFUL LEATHER PRESERVATIVE, suitable for Leather, Rubber, Cotton or Rawhide Belting. Belts dressed with this dressing will last twice as long and transmit 100 per cent. more power. Save your Belting and prevent heating of journals by running them under a reduced tension. Sold on approval to responsible parties. SEND FOR CIRCULARS.

BUFFALO SPECIALTY MFG. CO.,
67 & 69 Washington Street, BUFFALO, N. Y.



PUBLISHED EVERY MONDAY. OFFICES: { Corner Pearl and Seneca Streets,
Over Bank of Attica.
McFAUL & NOLAN, - - - PROPRIETORS.
THOMAS MC FAUL. JAMES NOLAN.

SUBSCRIPTION.

In the United States and Canada, postage prepaid, \$1.50 Per Year, in advance; remit by Postal Order, Registered Letter, or New York Exchange. Currency in unregistered letter at sender's risk.

To all Foreign Countries embraced in the General Postal Union, \$2.25 Per Year, in advance.

Subscribers can have the mailing address of their paper changed as often as they desire. Send both old and new addresses. Those who fail to receive their papers promptly will please notify at once.

ADVERTISING.

Rates for ordinary advertising made known on application.

Advertisements of Mills for Sale or Rent; Partners, Help or Situation Wanted, or of a similar character One cent per word each insertion, or where four consecutive insertions are ordered at once, the charge will be Three cents per word. No advertisement taken for less than 25 cents. Cash must accompany all orders for advertisements of this class.

Orders for new advertisements should reach this office on Friday morning to insure immediate insertion. Changes for current advertisements should be sent so as to reach this office on Saturday morning.

EDITOR'S ANNOUNCEMENTS.

Correspondence is invited from millers and millwrights on any subject pertaining to any branch of milling or the grain and flour trade.

Correspondents must give their full name and address, not necessarily for publication, but as a guarantee of good faith.

This paper has no connection with a millfurnishing house and aims to represent the trade without prejudice, fear or favor.

Address all communications

THE MILLING WORLD,
BUFFALO, N. Y.

Entered at the Post Office, at Buffalo, N. Y., as mail matter of second-class.

SITUATIONS WANTED.

Advertisements under this head, 25 cents each insertion for 25 words, and 1 cent for each additional word. Cash with order. Four consecutive insertions will be given for the price of three.

SITUATION WANTED.

Head miller with over 20 years experience want to make a change this spring. Address, A. MILLER, 67 Weaver Alley Buffalo, N. Y.

FOR SALE, EITHER ONE CHEAP.

A circular saw planing and feed mill, 90 acres of good land, two houses, one cost \$1200, best water power in county. 42 H. P. Turbine wheels. Three miles east of Ashtabula, O.

OR,

Short system full roller mill, capacity 2½ barrels of flour per hour, three grades. Buck wheat rig with Cranson shucker. Feed stone, &c. 40 H. P. Erie engine; locomotive boiler, all nearly new, on Main street, Ashtabula, O., two minutes walk from Post Office. Big retail trade. For particulars enquire of L. B. HOWARD, Ashtabula, Ohio. Box 488.

"We have a hostile milling press," magniloquently asserted Treasurer S. H. Seamans at Minneapolis. Nonsense! The shoe is on the other foot. The milling press has a hostile so-called National Association to contend with. The press is in contact with the millers and knows what kind of an association would attract and hold them. The National is a close corporation of exporters, who have no more thought of the average miller than they have of the king of Zululand. There is hostility between the so-called National and the milling press, but it is not the fault of the milling press.

SEVERAL things ought to be very clear to certain individuals since the Minneapolis convention of the Millers' National Association. 1. Those deluded milling journals that vainly imagined there would be a real reorganization of the National, that there would be a new departure, that new men, new aims and new methods would shape the policy of the body so as to recommend it to all millers of all sections, and that gave a half-hearted support to the National just before the convention, may now understand that it is the same old institution, working on the same old basis as the same old close corporation. 2. Those milling journals that have, through selfishness, or stupidity, or carelessness, boomed the National through thick and thin, in season and out of season, that have fawned on and toadied to the exporters, and that have thereby lost sight of the thousands of flour-makers in the United States, ought now to see that it lies forever beyond their feeble powers to coax, draw, bulldoze, flatter, persuade, coerce or intimidate the real millers into joining the National, and moreover that, in hanging to the caudal appendage of the National, they have estranged from themselves the millers of the land. 3. The mismanagers of the National ought to see that a programme of exercises, for a millers' convention, which omits everything that might possibly interest a miller and contains only what interests the brokers, gamblers and exporters, will forever make the sessions of the convention a miserable failure. Men will not sit and listen to palaver of the convention sort on subjects that interest them not at all or only slightly and indirectly. 4. All concerned ought to be able to see the crushing force of three virtual fiascoes in succession, in Buffalo in 1888, in Milwaukee in 1889, and in Minneapolis in 1890. They ought to understand that something is radically wrong, and that millers generally suspect or know that something is wrong, when, from over 6,000 invitations sent out, only 300 replies were received, when only a small portion of those who condescended to accept the Minneapolis invitations saw fit to go to that town during convention time, and when those who did go studiously refrained from boring themselves in attending the sessions. Some individuals are very slow to learn, but even the slowest of the slow among the managers, mismanagers, touters, boomers, boasters and agitators of the National ought to have learned something by this time. That they have seemingly learned nothing is discouraging. Facts run off their brains like water off a duck's back. Hard knocks dislodge their hides without making an impression on their difficult intellectuals. Defeat seems victory to them. Dry rot appears rapid and healthy growth to them. The worse off they become, the better pleased they profess to feel. Members go out faster than others come in, and they state that the National was never before so strong. They meet and talk themselves to death. They resolve and forget their own resolutions so far as never to act upon them. It is to be hoped that one result of the Minneapolis meeting will be the conviction of the fatally wrong and absurd management that a new departure is needed, and that, unless it comes, the National is as dead as Rameses in the pyramid.

SPECIAL ADVERTISEMENTS.

Advertisements of Mills for Sale or Rent, Partners Wanted, Machines for Sale or Exchange, etc., etc., cost 1 cent per word, for one insertion, or 8 cents per word for four insertions. No order taken for less than 25 cents for one insertion, or 50 cents for four insertions. Cash must accompany the order. When replies are ordered sent care of this office 10 cents must be added to pay postage.

FOR SALE

Water-power grist and feed mill for sale, at wharf and railroad, near New York. Established business, \$4,000. J. W. ATWATER, 150 Broadway, New York. 1720

VALUABLE ENGLISH PATENTS FOR SALE.

THE COCHRANE ONE BELT DRIVE.

The patents for England issued to the late W. F. Cochrane for improvements in roller mills. Address, J. V. TEETZEL, Hamilton, Ontario, Canada. 1316

FOR RENT.

Clinton Mills, at Black Rock, Buffal'0, for rent on reasonable terms, recently repaired and put in good order. Apply to CHAS. DANIELS, over 811 Main Street, Buffalo, N. Y. 6tf

FOR SALE.

One of the best paying 65-barrel roller mills in Nebraska. Nearly new, and in a locality producing a big surplus of excellent wheat. Address, A. C. PUTNAM, Chadron, Neb. 1114

PARTNER WANTED.

A man with capital to take an interest in a new 50-bbl. Roller, Flour and Feed mill. First class water-power. Every thing entirely new and in first class running order. A practical miller preferred. For further particulars address BILLINGS, REDHEAD & CO., Avoca, Steuben County N. Y. 1215

FOR SALE AT AUCTION

Flouring mill, water and steam power, will be sold at public auction on July 17th, 1890, at 2 o'clock P. M., on the premises. Water power good for nine months in the year. Capacity sixty barrels. A good established custom and exchange trade. Case roller process. Death of proprietor cause of sale. Terms: one-third cash, one-third in one year and one-third in two years, with six per cent interest, secured by mortgage on the premises. For particulars, address J. H. HATCH, Piqua, Ohio. 1920

MILL MACHINERY FOR SALE.

One No. 0 Standard Combined Separator, Smutter and Brush Machine; new, best make.
One 20-Inch Under-Runner Portable Mill, French Buhr Stone, capacity 10 to 12 bushels per hour; new, best make.
One 14-Inch Vertical Feed Mill; best make, new, a bargain.
One No. 6 Dustless Separator; new, a bargain.
One No. 1 Full Rigged Combined Dustless Separator; new, a bargain.
Four Corn Cob Crushers, right or left hand, driven from above or below, best make; capacity 40 to 60 bushels per hour.
Three No. 1 Corn Shellers, capacity 200 to 800 bushels per hour; new.
One No. 2 Purifier. New. Best make. A bargain.
One 20-Inch Portable Mill.
One 18-Inch Double Gear Portable Mill.
For particulars address, FRANK SMITH, care of THE MILLING WORLD, Buffalo, N. Y. 5tf

A VIEW OF THE TIMES.

A. B. SALOM.

PROBABLY there never was a time in the history of the human race when agitation in every line of labor and industry was so general as it now is. Certainly there never was a time when labor had less cause for discontent than now, especially in the United States. Labor is very generally well employed. Taking the past century as a basis of computation, including every element of the labor problem, and summarizing the situation in the average condition of the laboring man or producer, it may be said safely that labor in this country is to-day at the maximum so far as regards wages, hours of work, restrictions, privileges and general environments, while in the cost of living and other things on that side of the problem it is at the minimum. Notwithstanding all this, labor is demanding more and more and preparing to give less and less.

Broadly summing up the situation, it may be said that in this country the laboring man has it in his power to live comfortably, to rear his family decently, to give his sons and daughters a fair education and to play a very considerable part in the management of the politics of the nation. With all this, he is dissatisfied. He is in a ferment. Through the incessant misrepresentations of the professional agitators he has imbibed the idea that what he gets is only a small portion of what is due to him. He has come to think, and he asserts, that he "produces all." Coming to that state of mind, it is but a step to the next state, in which he is ready to assert that he should have the largest portion of what he produces, instead of the smallest portion. In this state of mind he at once and forever becomes the prey of the professional agitator, whose only interest in labor is the livelihood he plans to extort from the labor of others, whose guide he aspires to be. Out of this state of mind proceed discontent, agitation and incessant demanding of something claimed to be wrongfully withheld from labor.

Glancing over the industrial world, the observer sees hardly anything besides tumult, conflict and chaos. Labor in every form, producers in every line, are contending for what they claim as their own. The grain-growers and the general agriculturists are demanding the direct aid of the government to relieve what they style their depressed and distressed condition. They demand that the government shall go into partnership with them and stand ready to give them the money for their corn, wheat, oats, potatoes and other farm produce just as soon as the crops are gathered. They do not wish to be compelled to hold their produce until the market is ready for it. They wish to have the government step in and hold for them. They call for farmers' banks, for legislation to compel railroads to serve farmers at a direct loss for every service, great or small, and for exemption from all the adverse elements in the agricultural problem. It is not difficult to understand what they want, but it is difficult to understand how affairs could possibly go on in case these particular complainants had the power to obtain everything which they are demanding.

Another glance shows the miners of coal and iron and the producers of petroleum and other forms of wealth demanding quite as amazing and preposterous things, not only from the government, but also from that element in production which is called capital. These men insist that the government shall take possession of all the stores of natural resources, forests, minerals, oils, lands and others, and engage in a general business, in which the only element to be looked after is the labor. They imagine that the government can take the resources, employ all the labor in the land at high wages and with no stoppages, and thus keep things going. They have their spokesmen, and they reward them liberally for propagandizing all sorts of visionary schemes and insanities. Labor spends more each year in trying to spread such theories than it will ever gain in a century by spreading them. The wilder the scheme, the more numerous and the more fanatical do the adherents become. Among the almost countless propositions made by, or in the name of, labor, not a sane one appears. Each new one simply surpasses all former ones in unreason and worthlessness.

Naturally, but somewhat unjustly, all this fermenting insanity is charged up to labor. The plain fact is that it is the work of the demagogues who have been empowered to speak, to think, to plan, to act for labor, and labor is responsible for it only so far as labor justifies or adopts it. Unfortunately for labor, it has not always held back from the fatal advocacy of the mad schemes of the demagogues. The near past has shown labor willing to act upon the crazy suggestion of an 8-hour day of work for 10-hour pay, not stopping to compute the inevitable result of such a movement. The event shows labor suffering for the action. The demagogues led. Labor followed. The fight ended. Labor lost. The demagogues are still drawing their salaries and inventing new insanities for labor to attempt as soon as it has recovered sufficiently from its present wounds to invite new ones.

Thankless though the task may be, it is still the duty of every fearless, disinterested and unprejudiced student of events to warn labor against its own tendency to put its brains in the keeping of the demagogues. Labor is a powerful instrumentality, but it has even a more powerful fellow in capital. Labor may boast of its own power to produce, but it should not forget that capital holds the chief inducement to production. The Congo region has vast capabilities and millions of men, while New England has no natural resources and only capital. The difference between the actual productive capacity of the Congo region and that of New England measures the difference between labor surrounded by all sorts of natural resources alone and labor induced and enabled by capital to produce. While keeping in view the potentiality of capital and the relative helplessness of labor without it, the misled laborers should also remember that the functions of the government do not include banking and marketing for farmers, bankrupting of railroads to please the patrons, or mining coal and minerals and producing oil for the laborers and consumers. Possibly the most amazing feature of the general industrial ferment of the present time is the peculiar assumption that this, the least paternal of all forms of government, should be asked by labor to assume and exercise powers not known to the most despotic forms of government. There is no positive danger in the present ferment. Defeat after defeat in senseless contests will result in the adoption of reasonable methods of settlement. Capital will still rule. Labor will still serve. Capital will grow more liberal, and labor will grow less capricious. Contentment, stability and equity will come in on the day that sees the final exit of the hired and irresponsible demagogues.

ITALIAN WHEAT DUTIES AND IMPORTS.

Following is a quotation from a recent British consular report from Leghorn, Italy: "It is very interesting to trace the effects of the protective system of Italy upon the agriculture and the food supply of the people. Take first the case of wheat. India and Russia were competing up to last year to supply Italy with cheap wheat, and so much cheaper and better was their production than that of Italian farmers that the import steadily increased from 147,358 tons in 1881 to 1,015,860 tons in 1887. The cultivation of wheat was rendered less profitable, it is true, but the wine and fruit production was greatly extended. In February, 1888, the duty on imported wheat was raised from \$6 to \$10 per ton. What is the result? The competition between India and Russia to supply Italy with good wheat ceases, for Indian wheats, saddled with the heavier sea freight and Suez Canal charges, can not stand the additional burden imposed upon it by the new duty. Accordingly we see the import of foreign wheat fall in 1888 from 1,000,000 to 669,789 tons, but the consumption of inferior grain, such as maize, increases enormously; for Italy, it is estimated, requires not less than 4,000,000 tons of grain annually for the sustenance of its people. And the returns show that the value of maize imported the year after the imposition of the new duty is \$4,400,000 greater than in the previous year. At the same time there is no visible increase in the national production. The grain harvest of Italy in 1889 was officially declared to be 36,502,900

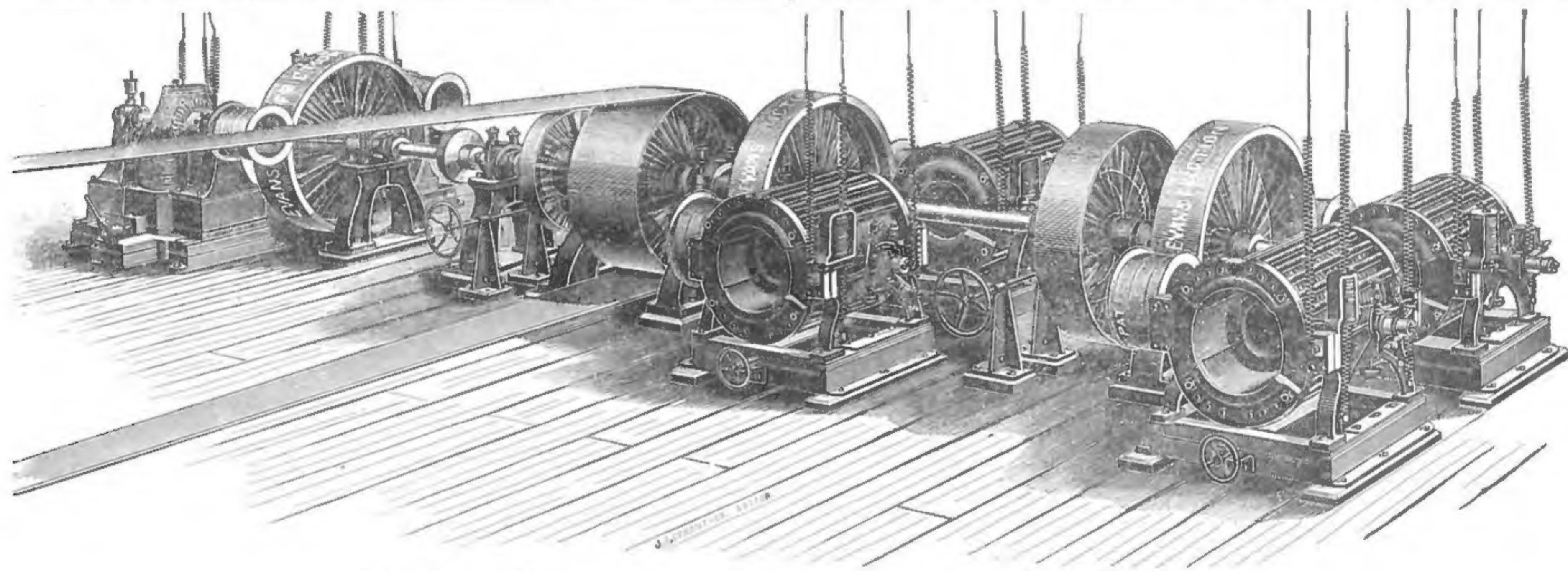
hectares, or a shade less than that of the previous year, which was 36,739,200 hectares. Nor, apparently, is the new duty able to shut out foreign competition, for in 1889 the import of foreign wheat, now nearly all Russian, increased again to 872,743 tons. The increased duty as a protective measure would appear, then, to have failed. But it has not failed to lessen the sources of supply, and it has compelled the poor of the country to eat inferior and less nutritious grains and the rich to pay more for their wheaten loaf."

AN ELECTRIC LIGHT PLANT.

Herewith is illustrated the plant of the Evans Friction Cone Company, of No. 85 Water street, Boston, Mass., which is situated at Attleboro, Mass. The line-shaft shown in the cut is driven from a compound Ide engine by means of the belt which is shown. The two machines at the extreme left of the cut are each 60-horse-power Thomson-Houston railway generators, both running on the same circuit. The power on these two machines varies from practically nothing to 140 horse-power many times an hour. Each of the four machines shown at the right of the cut are Thomson-Houston "L. D." machines, each with a capacity of 50 to 1,200 candle-power arc-lamps, and each machine is fully loaded. The speed of the line-shaft is 300 revolutions. The driving pulleys on the line-shaft are 56 inches in diameter. The speed of the railway generators is 1,150 and of the arc dynamos 820 revolutions. The Electric Company is now putting in another large engine and will belt direct to a continuation

parts of a wheat grain are: A. endosperm, 85 to 90 per cent.; B. germ, 1.75 to 2 per cent.; C. embryous membrane, 2.75 to 3 per cent. The percentages of commercial products usually obtained in a mill running on roller system are: Flour, 72 to 74 per cent.; sharps or pollard, 9 to 11 per cent.; bran, 16 to 18 per cent. The difference between the percentages of products contained in the wheat berry and those actually obtained in milling is to be explained by the fact that the endosperm adheres so tenaciously to the coating or testa that it is impossible to make a perfect separation with present appliances, and that a certain amount of the botanical endosperm is really a cellular tissue and passes to offal during the process of purification.

"Enumerate the impurities to be found in average: A. American winters; B. Russian Azimas; C. Varnas; and D. Indians; and the machines you would use to eliminate them?" The impurities to be found in average A. American winter are: Garlic, oats, cockle, grass seed, chaff, soil; B. Russian Azimas, cockle, rye, oats, smut, chaff and soil; D. Indians Barley, vetches, peas, linseed, stones, soil, chaff. I should treat them on the following machines in order to eliminate these: Pass them all through a "Zigzag" separator and aspirator, then grade into three or four sizes, pass all on to barley and cockle cylinders. The two smallest sizes of Varna and Azima I should pass through a grader of the circumferentially perforated type to extract the rye. All except Indian should then pass to scourer or smutter with attached fan exhaust, then to at least two brushes. The In-



THE EVANS FRICTION CONE CO.'S PLANT AT ATTLEBORO, MASS.

of this line of shafting and connect to the present shaft with a clutch coupling. On this continuation there will be more dynamos placed, and all will be driven by the Evans system. The dynamos, it will be noticed, are arranged so that one pulley drives two machines, in such a manner that each dynamo can be stopped and started without slowing the engine, independently of the other machines. By putting two dynamos on one pulley the pressure on the shaft-bearing is relieved, and the plant takes up the least possible amount of space. The generators are running street railways, and the arc machines run street circuits. The station is at (Farmers) Attleboro, Mass., and is owned by the North Attleboro Steam and Electric Company. They also have a station in North Attleboro, Mass. They will move some of their dynamos from North Attleboro to this new station this summer.

POINTS IN MILLING.

BRITISH methods of furthering a knowledge of milling points and practice among flour-makers may be seen in the following questions submitted to the candidates for the City and Guilds of London Institute Milling Technological Examinations, held throughout the United Kingdom in April last. Answers are given with the questions, presumably from the papers of one or more of the candidates:

"Give the percentage of the following parts of a wheat berry: A. Endosperm; B. Germ; C. Embryous membrane. Also the percentage of commercial products as usually obtained by a good roller plant. Explain the discrepancy between the percentages." The percentages of the following

dian should pass from cylinders to the washer, whizzer and dryer to extract stones and hard soil, afterwards to scourer and brushes.

"Specify the special points requiring a rollerman's attention, adjustments liable to get out of order, and anything which would prevent the proper working of the rolls. Give your remedy for each case." The special points requiring attention on the part of a rollerman are: That all rolls are parallel, and for this purpose a proof-plate should be used. The remedy to any irregularity is then made at the eccentric of the fulcrum of the adjustable roll; that lock-nuts are tight; that all bearings are lubricated properly; if automatic oiling-roll to journal it should be kept in motion. If a belt-driven roll he should see there is proper differential kept up. That all feeds are perfectly even and regularly supplied to rolls, scrapers acting properly. The remedy for evils here is recourse to file or grindstone to keep scrapers level, and adjustment of springs or weights to maintain equal pressure across, avoiding unnecessary pressure. That exhaust is properly applied, if any. That the appearance and "feel" of the stock, both before and after rolling, is correct in its relation to preceding process and subsequent treatment. That no pressure is anywhere applied to create high temperature of rolls, and so cause evaporation and loss, but that proper and sufficient pressure is applied to reduce the stock without caking. He should also see that the wheat coming to rolls is in a proper condition, or advise responsible party.

"The same as the foregoing, substituting purification for rollermen." The special points requiring a puriferman's

attention are, that all purifier sieves are kept level crosswise; this may be regulated at the hangers; that all sieves reciprocate at right angles to eccentrics; this may be secured by adjustment of eccentric or eccentrics; that there is proper pitch on sieve to cause sufficient flow of stock from head to tail; this may be done by putting the point of suspension of hanger nearer or further from eccentric, nearer if flow should be quicker; that all material coming to machines is properly graded and dusted; that all air-valves are adjusted to effect the best possible purification without waste; that the silk is kept stretched tight; that an even feed passes to each machine to cover the whole surface of cover; that exhaust-trunks, if any, are kept clear, otherwise, the filtering cloth, nozzle or channels are kept clear.

"How should you treat the product of the last break-roll (bran-cleaner) your object being to get flour good enough for bakers' grade?" I should treat the product of the last break-roll on a simple hexagon reel, clothed with 34 G. G.; the outsiftings I should dust over centrifugal clothed with No. 11 silk, then purify the overtails, roll the product and dress into bakers' flours.

"Give the usual fast and slow speed of smooth rolls. What is the object sought in giving one roll a higher speed than the other? Having a belt-driven roller-mill, and slipping belts, a mill is found with both rolls running at the same speed; what is then the condition of the products compared with proper work? Also, what would you do to prevent the slipping and still have proper pressure?" The usual speed for smooth rolls is: Fast roll 350, slow roll 280 revolutions per minute. The object of this differential is to grind or disintegrate the material without flaking. If both rolls run same speed the condition of the stock would then be found caked, whereas when rolls are running at a proper differential speed the stock is lively and "powdery." To prevent this belt slipping, I should simply adjust the belt-tightening pulley, or take up the belt.

"How would you manipulate the soft fluffy dunst and fine tails towards the end of the reduction process?" The treatment of soft fluffy dunst and fine tails towards the end of reduction process is always the most particular point in a mill. If all has been done in the way of purification that is possible, I should recommend subjecting it to fairly good pressure on smooth rolls, dust over centrifugal tail over to an eccentric sieve, tail of which should pass to offals over No. 5 silk; produce should be rolled again, dressed and sifted as before. I think a good sieve at this point more effective than a cut-off in a centrifugal, making a better separation.

"Mention the various circumstances which affect the flour-dressing in a mill." The various circumstances affecting the flour-dressing in a mill are condition of wheat, state of weather, adjustment of rolls, ventilation of the machines, proper speed of machines.

INJUSTICE TO AMERICAN INTERESTS.

Americans seem to be very slow to understand the gross injustice to American interests wrought by the monstrosity called the Interstate Commerce Act. That injustice is palpable and inexcusable. The act damages domestic interests and favors foreign interests. Foreign importers of manufactured goods are getting the best of the New York and New-England manufacturers in the competition for western trade through the agency of southern and western railroads, from which they obtain freight rates much lower than the American manufacturers can get. The eastern manufacturers and the managers of railroads, which, under ordinary conditions, would have the carrying of the manufactured goods of the Eastern and New-England States to the West, are up in arms against what they call an unjust and unfair discrimination against them in favor of the foreign importers by the southern railroad lines. Under existing conditions a Liverpool manufacturer sending his goods to cities in California through the port of New-Orleans, under a through bill-of-lading, can get his goods from Liverpool to any point in California or anywhere on the Pacific Coast at freight rates about five times cheaper than an American manufacturer has to pay. The Interstate Commerce Com-

missioners have been appealed to by the representatives of various New-York, Pennsylvania and California interests, to put a stop to this discrimination, if possible. Arguments were made before the Commission in Washington recently, and the facts in the case were then fully presented. The New-York Board of Trade and Transportation, representing all the principal industries of the State, the Philadelphia Exchange, comprising the leading manufacturers of Pennsylvania, and the San Francisco Board of Trade, of which the largest dealers in California are members, had their spokesmen there.

The hearing at Washington before the Interstate Commerce Commission on June 10 and 11, in the case of the New York Board of Trade and Transportation, the Philadelphia Exchange and the San Francisco Board of Trade against all American and Canadian railroad lines reaching interior American markets from the seaboard, in the matter of import railroad rates from foreign ports to such interior American markets, developed some facts of very great interest to the American manufacturers. The following table shows the import rates in cents on 100 pounds made from Liverpool through the port of New Orleans for the Pacific Railroad lines to Pacific coast points: From Liverpool by way of New Orleans to San Francisco, Sacramento, Marysville, Stockton, San Jose, Oakland and Los Angeles, Cal.:

	Through rates.	Ship's proportion	Railroad's proportion.
Boots and shoes.....	\$1.07	.27	.80
Buttons.....	1.07	.27	.80
Carpets.....	1.07	.27	.80
Cigars.....	1.07	.27	.80
Clothing.....	1.07	.27	.80
Dry-goods.....	1.07	.27	.80
Common glassware.....	.89	.19	.70
Groceries.....	.89	.19	.70
Hats and caps.....	1.07	.27	.80

Rates on the same goods to the same points for American manufacturers are from:

	New York.	New Orleans.	Chicago.
Boots and shoes.....	\$4.20	\$3.70	\$3.90
Carpets.....	3.30	2.88	3.00
Cigars.....	4.20	3.70	3.90
Clothing.....	4.20	3.74	3.90
Dry-good.....	4.20	3.74	3.90
Common glassware.....	1.50	1.25	1.30
Groceries.....	4.20	3.70	3.90
Hats and Caps.....	4.20	3.70	3.90

From this table it appears that American manufacturers at the port of or near New Orleans pay four or five times as much for like transportation service to the Pacific Coast markets for their goods as their foreign competitors seeking the same market from Liverpool. The result is that the foreign manufacturer of hats and caps, seeking Pacific Coast markets through New York, can, under a through bill-of-lading, obtain transportation from New York to those points for about one-fifth of the rates now charged to the New York or New England manufacturer for a like service. This difference between the rates charged for transportation to the foreign manufacturer and the American manufacturer very largely equalizes the tariff paid by the foreign manufacturer, and a bill of goods of foreign manufacture can be got to American centers of commerce upon about equal terms with American manufacturers, who are supposed to be protected by the tariff. Whatever the relative merits of free trade and protection may be, all must and will agree that for railroads thus to assume to destroy the effect of the tariff laws for the benefit of foreign manufacturers is wrong and vicious and ought not to be permitted. Railroads ought to be held to the rule at least of making no discrimination between a foreign and a domestic manufacturer for like services rendered by them in the transportation of goods. The decision of the Interstate Commerce Commissioners on the question involved is awaited with great interest by the Eastern railroad companies and manufacturers. They hold that, with this discrimination against American goods and with the cheaper labor abroad, the effect of the tariff on the principal articles of home-make is completely overcome, and that English manufacturers are taking away the trade which should naturally belong to the Eastern States.

PROTECTION FOR AMERICAN FARMERS.

Following are the principal changes in the United States tariff on Canadian products which will be made by the McKinley bill:

	Present duty.	Proposed duty.
Horses.....	20 p. c.	\$30.00 per head, (with proviso).
Cattle over one year old...	20 p. c.	\$10.00 per head.
Cattle under one year old..	20 p. c.	2.00 per head.
Hogs.....	20 p. c.	1.50 per head.
Sheep.....	20 p. c.	1.50 per head.
All other live animals	20 p. c.	20 p. c.
Barley and rye	10c. per bu.	.30 per bu.
Barley malt.....	20c. per bu.	.40 per bu.
Beans.....	10 p. c.	.40 per bu.
Beans and peas in tins, jars, etc.	30 p. c.	40 p. c.
Butter and substitutes	4c. per lb.	.06 per lb.
Cabbage.....	10 p. c.	.03 each.
Cheese	4c. per lb.	.06 per lb.
Fruit—grapes, plums & prunes	1c. per lb.	.02 per lb.
Fruits preserved in the juice	20 p. c.	30 p. c.
Salmon & other fish, pres'd	25 p. c.	.01 per lb.
Fresh fish other than lake..	Frea.	.01 per lb.
Honey	20c. per gal.	.20 per gal.
Hops	8c. per lb.	.15 per lb.
Lard	2c. per lb.	.02 per lb.
Oats.....	10c. a bu.	.10 a bu.
Oatmeal.....	½c. per lb.	.01 per lb.
Peas, green or dried, in bulk	20 p. c.	40 & 20c. per bu.
Lumber, sawn.....	\$2 per M.	\$1.50 per M.

The duties on coal and iron ore which stand in the way of the development of the mineral resources of this country are retained at the present figure. In fact, the only natural product of Canada which is favored with a reduction of duty is lumber; and if the government does not soon abolish the export duty on logs the United States Senate will probably add it to the proposed duty of \$1.50 for sawn lumber.
—Montreal "Journal of Commerce."

CONTEMPORARY COMMENT.

If the Minneapolis mills are owned by an English syndicate and have very large stocks on hand, why should not the manager publish a communication in English papers stating "that America will not have one bushel surplus of wheat on the next crop to export in wheat and flour"?—Chicago Daily "Trade Bulletin."

The flour-millers' convention at Minneapolis indorsed the Butterworth anti-option trading bill. This action on the part of the men who are uniformly bearing prices in order to get cheap wheat will open the eyes of farmers to their real interests.—Chicago "Daily Business."

THE WORLD'S COINAGE IN 1889.

A much larger gold coinage was executed by the mints of the world during 1889 than usual, and, were it not for a simultaneous decline in silver, the aggregate would have stood very high. Although Great Britain coined an exceptional amount of silver last year, the output of the Indian mints is much less, having fallen to about one-half; Spain also, which stood for over £2,000,000 of silver last year, does not appear in the present record, the deputy-master of the mint not having been able to obtain the information for which he applied to the superintendent of the Royal mint at Madrid. Turkey has likewise supplied no information, but for the last few years Turkish coinages have been insignificant. The aggregates for the past three years are:

	1889.	1888.	1887.
Gold.....	£34,543,428	£25,497,740	£23,716,000
Silver.....	23,734,397	31,507,922	26,651,000
Copper.....	652,304	1,062,867	362,000
Total.....	£58,930,129	£58,068,529	£50,729,000

These totals are only approximate, as in addition to those countries from which no returns have been received there have been small coinages by the Berlin Mint for Egypt, the Belgian Mint for the Congo, and the Birmingham Mint for British possessions and foreign countries. The Birmingham company has issued silver coinages for Hong Kong and the Mauritius, a bronze coinage for Guernsey, a silver and a copper coinage for the British East Africa Company, a copper coinage for the British North Borneo Company; also

silver and copper coinages for the republics of Ecuador, Costa Rica and Salvador, the Rajah of Sarawak, Pudakota (native Indian State), and French Cambodia. All these put together would not, of course, amount to a large sum. The various countries, taken separately, give the following figures:

Mint.	Gold.	Silver.	Bronze and Nickel.
London, Imperial.....	£ 7,257,455	£2,215,742	£ 68,474
London Colonial.....	.....	185,593	875
Sydney.....	3,294,000	.....	.....
Melbourne.....	2,732,000	.....	.....
Calcutta.....	16,957	785,587	65,585
Bombay.....	.....	4,876,100	10,597
United States.....	5,108,800	6,903,100	131,300
Germany.....	10,118,959	37,201	178,405
France.....	699,112	269,974	11,426
Switzerland.....	80,000	.....	1,200
Austria-Hungary.....	683,606	939,474	27,199
Russia.....	3,888,446	237,915	27,058
Scandinavia.....	222,070	54,211	8,515
Netherlands.....	169,306	.....	.....
Portugal.....	19,778	140,000	.....
Japan.....	185,939	2,089,500	45,720
Mexico.....	67,000	5,200,000	26,000
Total.....	£34,543,428	£23,734,397	£652,304

THE silly Minneapolis "Yahoo," which is not read by the millers of the United States, proposes that the Millers' National Association shall go to Europe next year. That is a good plan. The National, at least the 19 or 20 exporters of flour who call themselves the "National," ought to go to Europe next year. It will cost them less than rackets like the late Minneapolis convention, and they could take the silly "Yahoo" editor along free-gratis-for-nothing, contrive to get him dropped overboard in mid-ocean and omit getting him fished out. In that way they would be forever rid of his snarling, yelping and insane palaver. No one will kick about the bill-of-lading in case the "National" conducts a permanent disappearance of the silly "Yahoo" editor. Fill his maw with 17 yards of burlaps, tie him in a jute bag and consign him to the locker of Davy Jones.

Of course we shall hear a good deal said about the adoption of the new constitution of the "National," about its being "just the thing to do," about its "representing the sentiments of the millers of the United States," and so on, ad infinitum and ad nauseam, but we must smile per force when we recall the fact that the new constitution was really adopted by about 20 members of the "National." As there are something like 20,000 millers in the United States, it appears that one out of a thousand "represents" the other 999, although in no way authorized to speak for the 999! The "National" situation is largely farcical, in whatever light it is viewed. The flour-barrel clause in the constitution is merely an appropriate bit of nonsense and inconsistency in the grand whole of nonsense and inconsistency.

SPECIAL NOTICES.

BOLTING CLOTH.

Do not order your cloth until you have conferred with us. It will pay you, both in point of quality and price. We are prepared with special facilities for this work. Write us before you order.

CASE MANUFACTURING CO.,

Columbus, Ohio.

Office and Factory, 5th Street, north of Naughton.

TOLEDO MILL PICKS AND STONE TOOL MFG. CO.

Manufacturer



and Dresser of

MILL PICKS.

Made of the best double-refined English cast steel. All work guaranteed. For terms and warranty, address, GEO. W. HEARTLEY, No. 297 St. Clair Street, Toledo, Ohio. Send for Circular.

N. B.—All Mill Picks ground and ready for use (bot old and new) before leaving the shop. No time and money lost grinding rough and newly dressed Picks. All come to hand ready for use.

ALSO MANUFACTURERS OF

Shafting, Pulleys, Hangers, Coupling, Machine and Jobbing, Etc., Etc.

CUTTING GLASS BY ELECTRICITY—The process of cutting glass tubes by electricity appears to be successful. The tube is surrounded with fine wires, and the extremities of the latter are put in communication with a source of electricity, it being necessary that the wire adhere closely to the glass. When a current is passed through the wire, the latter becomes red-hot, heating the glass beneath it, and a single drop of water deposited on the heated place will cause a clean breakage of the glass at that point. Contrary to what takes place in the usual processes of treating this material, it is found that the thicker the sides of the tube are the more successful is the operation likely to be.

GENERAL NOTES.

UNITED STATES patent No. 1 was issued April 10, 1790. The century closed with No. 425,395.

MILLING PATENTS.

Among the patents granted June 24, 1890 are the following:

Geo. L. Jarrett, Des Moines, Ia., No. 430,652, a grain steamer and drier for mills, comprising a tubular conveyer-shaft having a spiral flange, provided with an opening at one end to admit steam and perforations at its central portion to emit steam, a cast-metal end piece and bearing for the tubular shaft, an extension fitted in the contracted end of said end piece, an open-ended cylinder fixed in the rear part of said end piece to envelop the conveyer-shaft, an open-ended jacket slipped over the cylinder and fixed to the rear of the said end piece, a collar slipped over the rear end of the cylinder and fixed to the rear end of the jacket, a gland or plug fitted in the bore of the collar and fixed to the collar, an end piece having a bearing for the tubular shaft fixed to the rear end of the cylinder and provided with a grain-outlet, a tube for conveying steam into the tubular shaft, and a tube for conveying steam into the annular chamber on the inside of the jacket.

James Swan, Chicago, Ill., No. 430,761, a bolting-reel, comprising the combination of a frame with a longitudinal axis, a bolting-cloth cover, and widely-separated longitudinal pockets depressed below the inner surface of the cloth, so that the material is gathered therein and then permitted to slide on the even surface as the reel rotates, said pockets being formed of imperforate material.

Joshua M. Smith, Springfield, O., No. 430,789, a scalping and bolting machine, comprising the combination, with a stationary frame, hangers depending therefrom, a screen-frame having screens and suspended by hangers, supports depending from the screen-frame, belt-guides fastened to said supports, rollers mounted in the guides, endless belts carried by the rollers, rotatable brushes carried by the belts and arranged to be rotated by being drawn on by the belts as they project into the sieves, a cam having sharp angles in its groove and engaging the sieve-frame, and a sprocket on the cam-shaft operating the said belts, whereby a swinging sieve-frame with sudden jerks in its vibration is combined with a brush penetrating the sieves and rotated therewith.

Wm. Cook and John R. Gent, Columbus, Ind., No. 430,836, a bolting-reel, comprising the combination, with the outer covering of bolting material, an inner cylinder consisting of a series of perforated separating-blades arranged longitudinally and centrally within the covering to form a series of open buckets discharging into each other and having their forward edges nearer the bolting-cloth than their rear edges, whereby the offal and coarser particles are first separated from the mass of ground material, and then returned thereto through the blades.

Marshall B. Lloyd, Minneapolis, Minn., No. 430,867, an automatic grain-scale.

Geo. M. Snodgrass, Honey Grove, Tex., No. 430,893, a millstone-dress, comprising a series of double-angle furrows surrounding the eye and opening into angular pockets which closely surround said eye, one of the furrows being substantially tangential to said eye and extending to the skirt of the stone, in combination with one or more angular furrows parallel with each other and lying at an angle with the main furrows, and diminishing or auxiliary furrows formed at an angle to both, but parallel with each other, and lying between the parallel angular furrows and extending to or toward the skirt of the stone at an angle with the radial line.

Daniel C. Stover, Freeport, Ill., No. 430,899, a grinding-mill.

Frederick Carter and Marcus McChesney, North Platte, Neb., No. 430,921, an alarm for mill-elevators.

LEGISLATION TO AID FARMERS.

Following is the text of a bill recently introduced in the House of Representatives, Washington, D. C., by Congressman Smedley Darlington, of the VIth Congressional District of Pennsylvania:

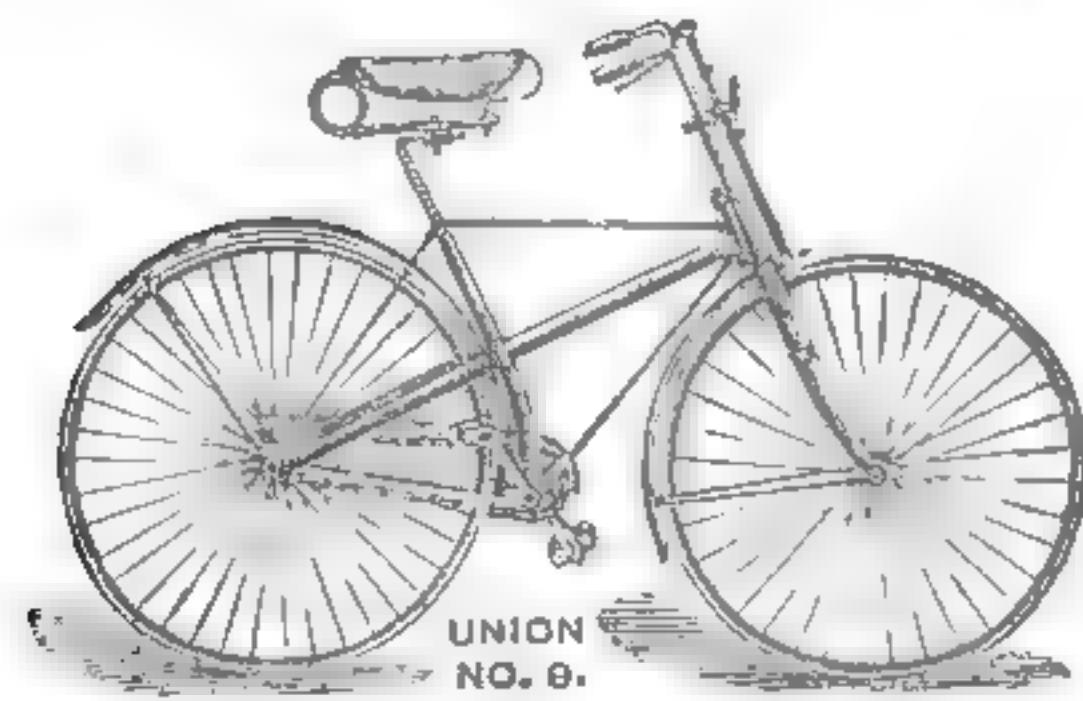
"Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled:

That the Secretary of the Treasury be and is hereby authorized to pay a bounty of fifty cents for each barrel of flour exported from any port in the United States, in any vessel built in the United States and owned by citizens of the United States, to any port in Europe, until twenty millions of barrels of flour shall have been exported. And the sum of ten millions of dollars is hereby appropriated for that purpose out of any money in the Treasury not otherwise appropriated. Provided, that no bounty shall be paid by the Secretary of the Treasury to any owner, officer, or their agents, or to any other person, until satisfactory evidence has been produced to said Secretary that the flour has been shipped from a port in the United States and landed in a port in Europe, and that the vessel in which it was exported was built in the United States and owned by citizens of the United States. This act shall take effect in thirty days from its passage."

This bill was ordered to be printed and referred to the Committee of Ways and Means, in whose hands it will probably lie and die without action. The framers of this peculiar bill design it to aid both farmers and millers, but it is extremely doubtful whether it would aid either. It is singularly indefinite. For instance, it provides for the payment of a bounty of 50 cents a barrel until 20,000,000 barrels have been sent out, but it fails to limit the time within which the 20,000,000 barrels shall be exported. That failure is peculiar. If the bill is to increase flour exportations, the element of time should be definitely fixed. As this bill stands, it merely provides that the exporting millers shall receive from the government 50 cents a barrel clean profit on the next 20,000,000 barrels of flour they send out of the country, providing they send it in vessels built and owned in the United States. As they are already exporting from 8,000,000 to 10,000,000 barrels a year, this bill simply gives them \$10,000,000 profit on their business for the next two years.

Just where the farmer is to be benefited by the bill does not appear. The bill is again indefinite in this particular. The bounty of 50 cents a barrel on exported flour is equal to a bounty of about ten cents a bushel on the wheat grain used in making the flour, but the bill does not provide for giving the wheat-grower the ten cents for his bushel of wheat. As the millers export and the farmers do not, where is the benefit of the bill to the farmers? Is the exporting miller expected to divide the 50 cents a barrel with the grower whose wheat he grinds for export? It is curious that men proposing to ask the government to aid one class of producers should make out a bill in such a way as to aid another class of producers instead. THE MILLING WORLD fails to see, in this case, where the farmers come in for gain, under this bill, which is claimed to be put forward for their especial benefit. We also fail to see why the bill is not made more explicit concerning time. It should state whether or not the attempt is to be made to swell our flour exportations from their present proportions to 20,000,000 barrels a year. Possibly our farmer friends may take a new view of this bill when their attention shall be more closely called to its peculiar indefiniteness and one-sided provisions.

Union Cycle Mfg. Co.



MAKERS OF THE CELEBRATED—

Union Safety and Springfield Roadster BICYCLES.

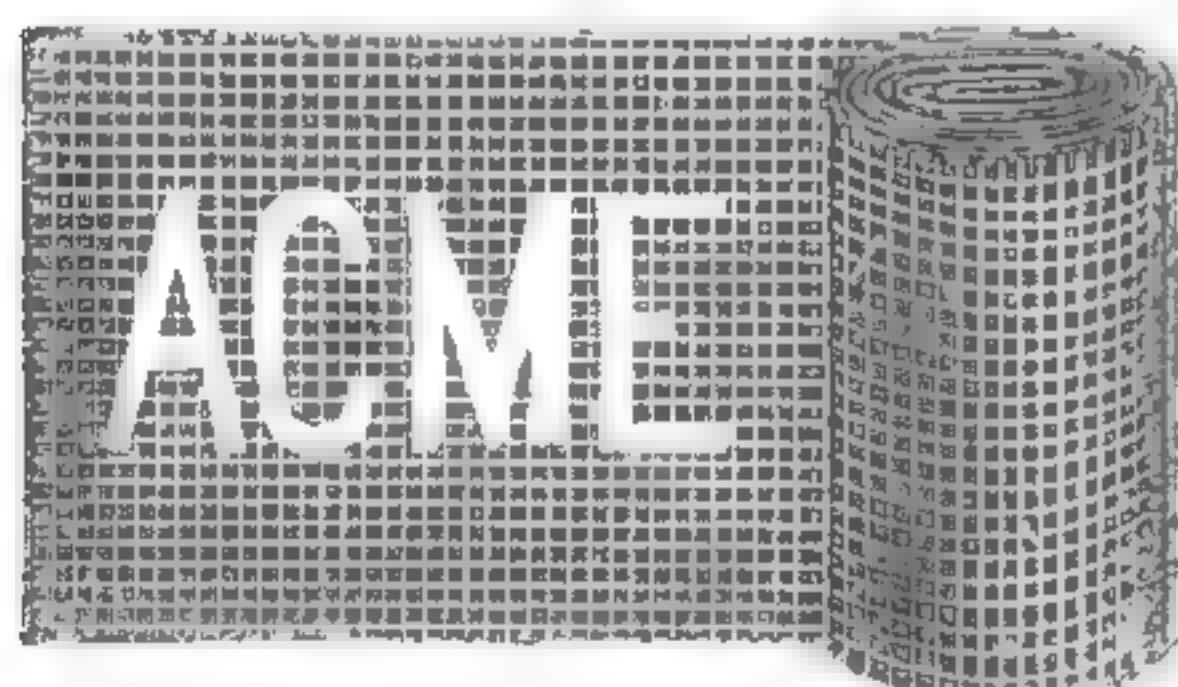
Highlandville, - Mass.

THE BEST AND CHEAPEST CORN AND COB CRUSHER IN THE WORLD.

All wearing parts cast of a steel mixture. Notice difference in construction. Most area where most work is done, where all other crushers have least area where most work is done. Low priced machinery is not the cheapest, considering durability and efficiency. Sent on 30 days' trial when satisfactory reference is furnished.

Please Send for Circulars.

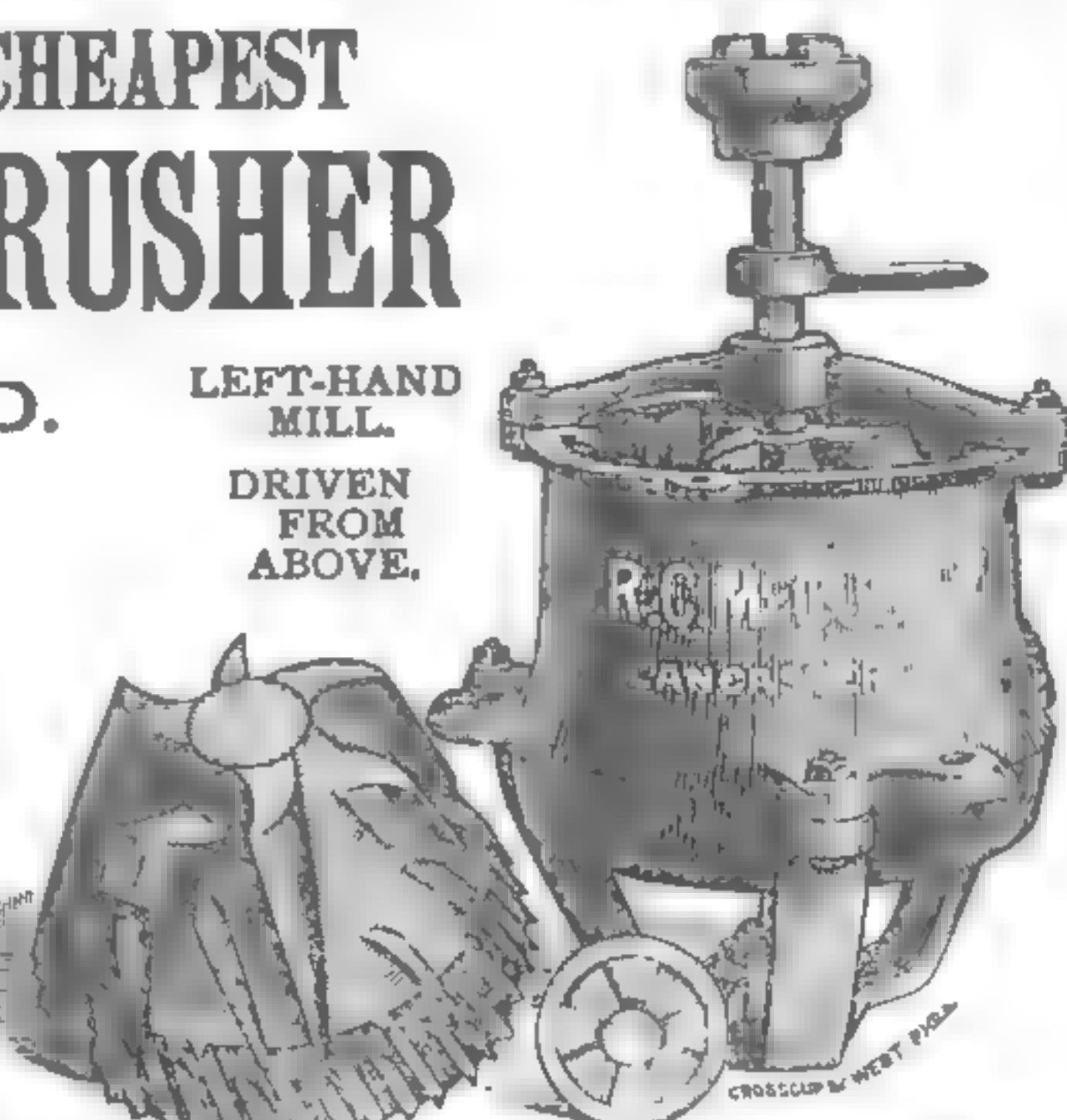
R. C. McCULLEY, LANCASTER, PENN.



WHEN YOU WANT WIRE CLOTH

SEND TO
Brooklyn Wire Cloth Works,
107 JOHN STREET, NEW YORK.

RIGHT-HAND RUNNER.

LEFT-HAND MILL.
DRIVEN FROM ABOVE.

CROSSCLIP & WEST PIG.

FILL CAVITIES AND SEAMS

WITH OUR FRENCH BUHR STONE

CEMENT

CUTS AS WELL AS STONE ITSELF.

CUTTER & WOOD,

(Successors to Union Stone Co.)

35 ARCH ST., BOSTON, MASS.

L. L. WHITLOCK,
Advertising Agent

FOR MANUFACTURERS.

TRADE JOURNALS A SPECIALTY.

P. O. DRAWER 5323. Boston, Mass.

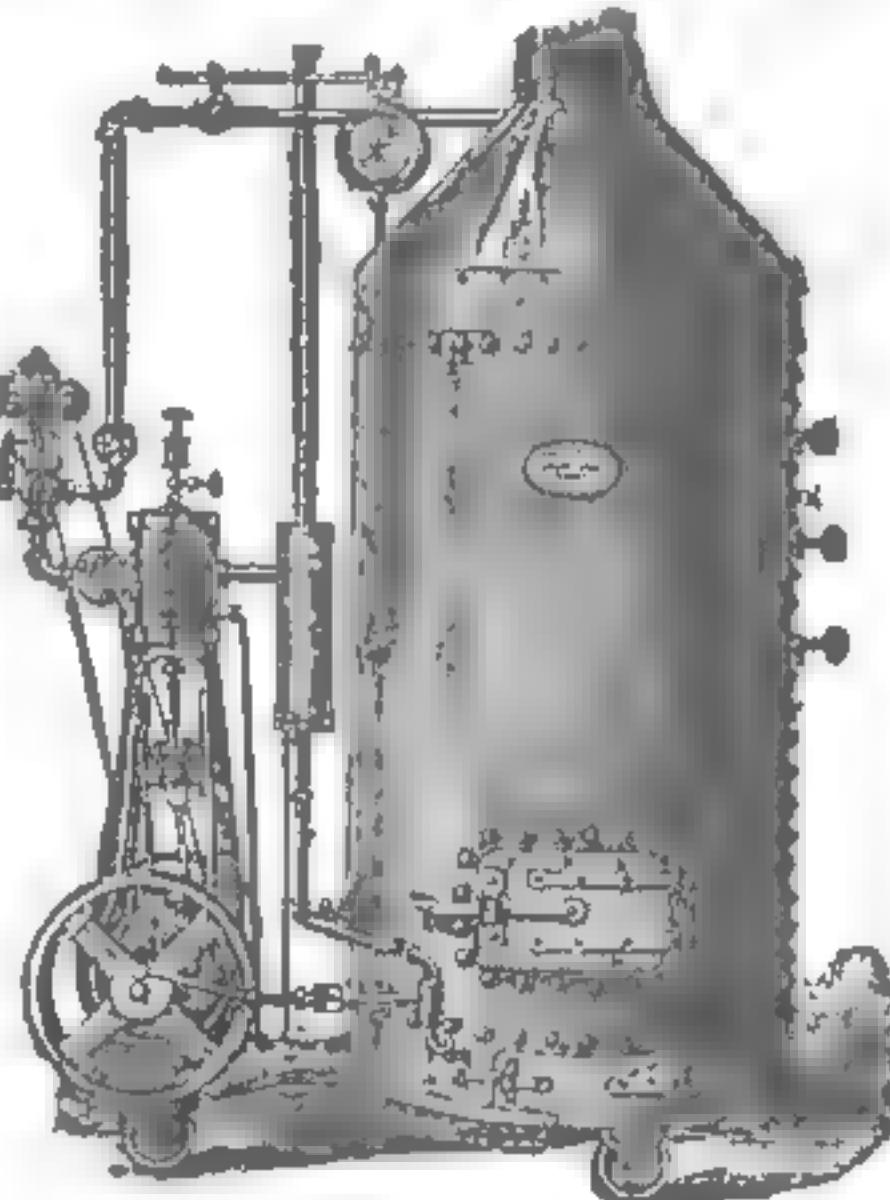
As Agent for Advertisers instead of Papers, I obtain the Best Rates Possible for my Customers.

TONAWANDA

ENGINE AND BOILER WORKS

A Large Assortment of Machinery.

The Best 6-Horse Power Semi-Portable Up-right Engine and Boiler Made.

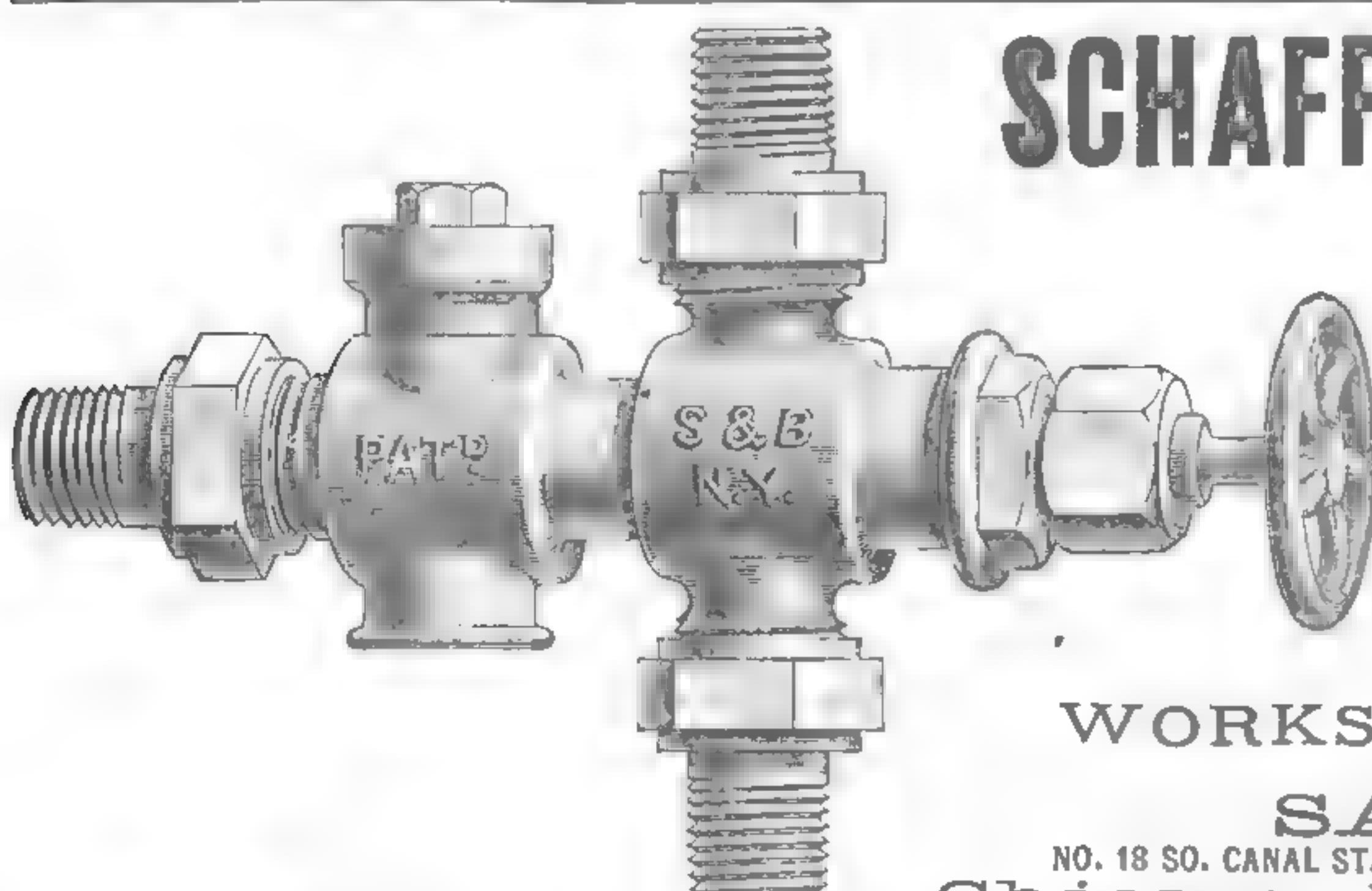


SEND FOR CATALOGUE.

ARMITAGE, HERSCHELL & CO.

Tonawanda N. Y.

SPECIAL PRICE. GUARANTEED.



SCHAFFER & BUDENBERG,

—MANUFACTURERS OF—

Pressure Gauges for all Purposes

ENGINE COUNTERS AND REGISTERS.

IMPROVED RESTARTING INJECTORS AND EXHAUST STEAM INJECTORS.

PYROMETER AND THERMOMETER, STEAM TRAPS, REDUCING VALVES, AND ENGINE AND BOILER APPLIANCES IN GENERAL.

WORKS AT BROOKLYN, N. Y.

SALESROOMS:

NO. 18 SO. CANAL ST.,
Chicago, Ill.NO. 40 JOHN STREET,
New York.

KEEP YOUR BELTS FROM SLIPPING

And Save Your Power by Using FRICTION COVERING for Pulleys. Agents Wanted. Satisfaction Guaranteed. Easily Applied. No Rivets. Effective.

NATIONAL PULLEY COVERING CO., BALTIMORE, MD.



V. B. Kerr, New Hope, Va., remodels to rolls.
 A. M. Shepperd, miller, Ballston, N. Y., assigned.
 F. G. Rodolf's mill, Muscoda, Wis., storm-wrecked.
 Cutler & Doolittle, millers, Wolcottville, Ind., dissolved.
 Wm. M. Barnes' flour-mill, Boaz, Wis., was damaged by storm.
 Jas. Beech, Stephenville, Tex., is building a roller flouring-mill.
 Wm. S. Camp, of the Franklin Mills Co., Lockport, N. Y., is dead.
 Howell & Sons, millers, Trenton, N. J., are succeeded by Howell Bros.
 Howell & Sons, millers, Morrisville, Pa., are succeeded by Howell Bros.
 E. J. Prothro, Richland, Ga., wants corn-mill machinery for 500-bushel plant.

Liddell & Bailey's elevator, Fairbury, Neb., lost \$4,000 by fire; insurance \$2,500.
 H. L. Beatty's flour-mill, Port Murray, N. J., burned; loss \$5,000; insurance \$2,500.

Jas. Norman & Co., flour millers, John Day, Ore., are in the hands of an assignee.

The I. Marquess Co., Marquess, W. Va., propose to remodel their buhr mill to rolls.

J. F. Renfro, Opelika, Ala., has points on a proposed 135-barrel roller flouring-mill.

McGrew Bros.' flouring-mill, Kankakee, Ill., burned; loss \$30,000; insurance \$18,000.

The Central Elevator Co., Chattanooga, Tenn., sold their plant to T. C. Montague for \$20,650.

G. P. Zeigler, Timmerman, S. C., will build a flouring-mill; he wants an outfit of machinery.

C. B. Price, representing a Scotch syndicate, will build a 100-barrel roller flouring-mill at Norfolk, Va.

Boardman & Ferguson, millers, Honeoye Falls, N. Y., dissolved, H. E. Boardman continuing the business.

A Minneapolis paper reports the organization of a cracker trust with \$10,000,000 capital. The stockholders will have crackers and water.

The American flour trade with Brazil is suffering from heavy import duties, and Brazilian millers are endeavoring to emphasize this discrimination. When it is considered that \$70,000,000 worth of coffee was imported into this country free last year, and that 700,000 barrels of flour paid \$500,000 import duty, the feature of international reciprocity seems strangely lacking.

A Minneapolis dispatch dated July 3 says: The negotiations for the transfer of the C. C. Washburn Mill Company to the Pillsbury-Washburn Company have been practically completed. At the annual meeting of the C. C. Washburn Company's directory the proposition for the transfer of the plant was ratified. One director held a majority of the stock, and as he voted in favor of the transfer, the other six had to fall into line.

Under date of July 3 a report from Washington, D. C., says: The secretary of State received the following dispatch from Ramond Williams, United States Consul-General at Havana, to-day: "Up to the 30th of June American flour paid \$4.69½ import duty, from which amount 5 per cent. was deducted, leaving the total net duty at \$4.46, but from July 1 it will be \$4.69½ plus twenty per cent., making the duty \$5.63½ on each barrel of flour from the United States. Spanish flour from the 1st of July enters free of import duty. Both American and Spanish flour will continue to pay discharging dues of \$1 and harbor improvement dues of 25 cents for each thousand kilos."

Says a New York daily of July 2: An eminent New Jersey weather prophet sang in advance of late May and June weather. He predicted dense fogs on Memorial Day and close and sultry air before noon. It was a beautiful and breezy day. June 3 was to have a great fall in temperature and northwest gales. The thermometer marked 79 on that day and

93 on the next. The 5th was to bring a very cold northwest storm. The mercury marked 92. Not ten clear days were likely to occur in June. There were 27 days mostly clear, 7 days of rain-fall, generally in early morning or in the evening, and there was not one full day of rain, the worst being Saturday, the 21st, a well remembered day.

Says Chicago *Daily Business* of July 1: The report from the northwest, or rather from portions of the Northwest, are becoming more unfavorable with regard to the wheat outlook. In the same line is the following letter from a citizen of Winnipeg, Manitoba, to *Daily Business*, dated June 28: "The writer has just completed a three weeks trip over the Province of Manitoba and finds that crop prospects are very unfavorable over a very large proportion of the wheat belt. The weather has been very dry for the last three weeks and the excessive heat, accompanied by hot, dry and severe winds, has done incalculable harm to the wheat fields. The bears on your market need not look to this province for arguments favorable to their interests. If Manitoba and the Canadian Northwest export 6,000,000 bushels of wheat they will do far more than present prospects indicate. The big estimates of six weeks ago require discounting about two-thirds. I fear that portions of Northern Dakota are similarly affected. If we get heavy rains soon, wheat sown on freshly broken (new) lands may improve materially, but at best our crop is two weeks behind last season's. Yours truly, L. K. M."

Perhaps the most striking feature of the July *Century* is the long-expected debate on "The Single Tax," by Edward Atkinson and Henry George. Mr. Atkinson opens the discussion in a paper on "A Single Tax upon Land"; Mr. George replies in "A Single Tax on Land Values," and there is a rejoinder by Mr. Atkinson. Another article that marks this number of the *Century* is the beginning of the *Century's* "Prison Series," the first paper being a thrilling account of the life of "A Yankee in Andersonville," by Dr. T. H. Mann. The first of two papers on "Provence" describes and brilliantly illustrates an unacknowledged region of the Old World; that part of France which is like Italy. Miss Preston, who wrote the article, is the well known translator of "Miero." Dr. Edward Eggleston in an illustrated article tells the story of "Nathaniel Bacon, the Patriot of 1676." John Burroughs prints a characteristic out-of-door paper entitled "A Taste of Kentucky Blue-grass." Joseph Jefferson, in his charming Autobiography, describes his early experiences in Peru and Panama. Mrs. Amelia Gere Mason describes the "Women of the French Salons of the 18th Century." The fiction of the number consists of the second part of the anonymous "Angloamericans"; the ninth part of Mrs. Barr's "Olivia"; a story, "The Reign of Reason," by Viola Roseboro, (a young Southern writer with a rapidly growing reputation); and a complete novelette, "Little Venice," by Grace Denio Litchfield, with a full-page illustration by Mary Hallock Foote. The Editorial Topics are: "On Lack of Conscience as a Means of Success," "New York's Reformed Electoral System," "A Recent Sermon," and "Tom Toms in Politics." There is an Open Letter on "The Inside Facts of Lincoln's Nomination."

A NEW METHOD OF TREATING DISEASES.

HOSPITAL REMEDIES.

What are they? There is a new departure in the treatment of disease. It consists in the collection of the specifics used by noted specialists of Europe and America, and bringing them within the reach of all. For instance the treatment pursued by special physicians who treat indigestion, stomach and liver troubles only, was obtained and prepared. The treatment of other physicians, celebrated for curing catarrh was procured, and so on till these incomparable cures now include disease of the lungs, kidneys, female weakness, rheumatism and nervous debility.

This new method of "one remedy for one disease" must appeal to the common sense of all sufferers, many of whom have experienced the ill effects, and thoroughly realize the absurdity of the claims of Patent Medicines which are guaranteed to cure every ill out of a single bottle, and the use of which, as statistics prove, has ruined more stomachs than alcohol. A circular describing these new remedies is sent free on receipt of stamp to pay postage by Hospital Remedy Company, Toronto, Canada, sole proprietors.



W.A.BINGHAM,
 MANUFACTURER OF
FLOUR SACKS.
 178 Duane Street,
 New York, MILLERS' FLOUR SACKS A SPECIALTY.



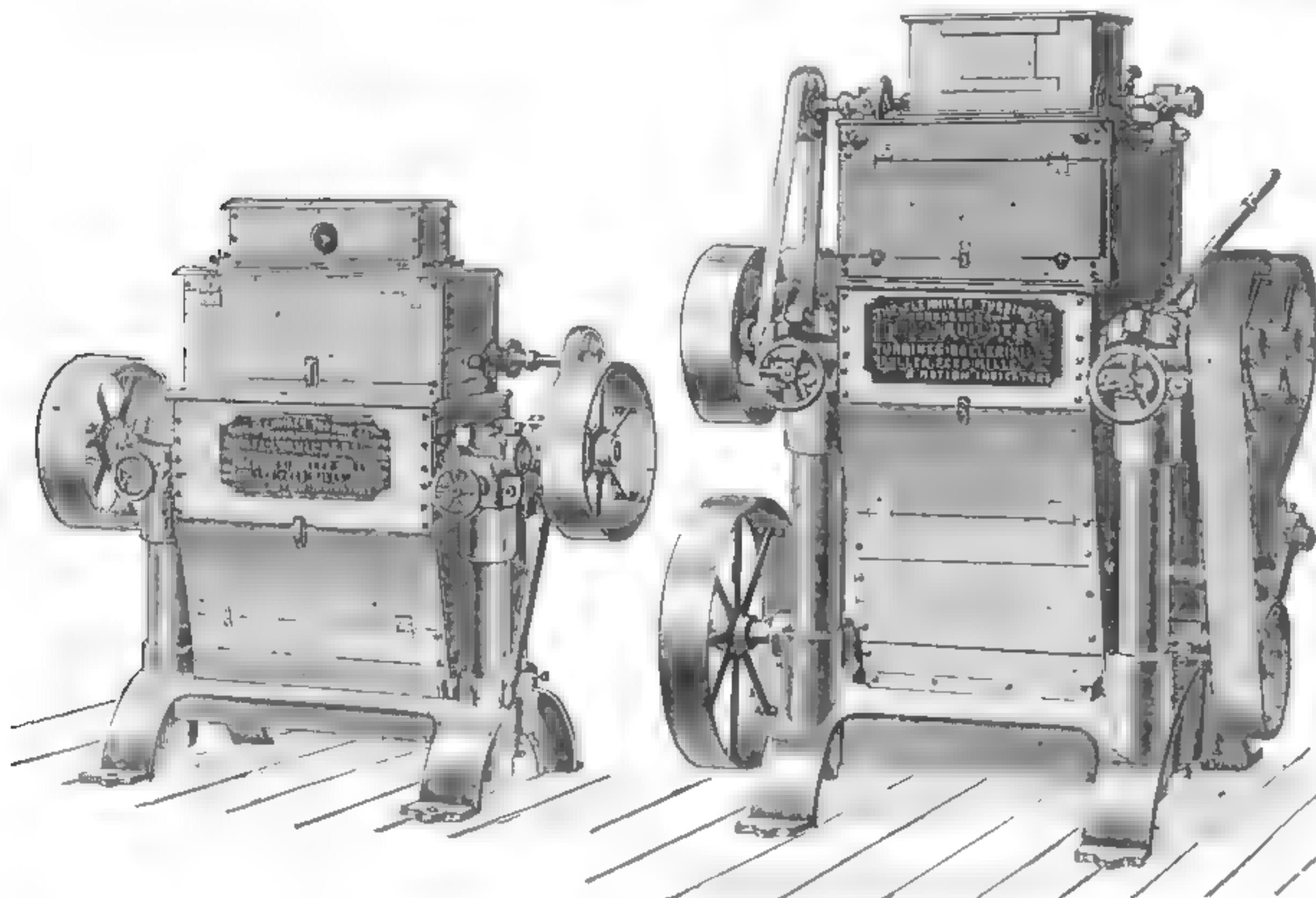
THE PATRONAGE of the MILLING TRADE is MOST RESPECTFULLY SOLICITED.

ONE REDUCTION TO THE FRONT!

*Ye jolly millers, one and all,
Who granulate with burrs,*

A Moses has Come to Deliver You from Egypt. Cease Trying to Make Bricks without Straw. The Red Sea of Expense Has Been Divided.

The Wilderness of Reductions has Been Shortened. There is Manna in Abundance for Those Who Believe. Listen to the Glad Tidings of Great Joy!



ONE REDUCTION ON ROLLS IS A SUCCESS! Two years of experience in a dozen States, with all kinds of Wheat and diversified climates, has justified us in recommending its adoption in place of burrs in each and every case, whether for grinding Wheat, Rye or Buckwheat. We have perfected Roller Mills, Bolts and Scalpers peculiarly adapted to the wants of Small Mills, and all our machines *infringe no patents*, and no claims are made that they do.

Having consummated a bargain with MR. O. C. RITTER, the author and patentee of One Reduction, which gives us the *exclusive right* to construct mills under his patents, our patrons in the future will receive a license from Mr. Ritter.

SPECIALTIES!

Graham Roller Mills, Round Reels and Scalpers, Sectional Round Reels, Grain Separators, Motion Indicators. Before buying any of these machines send for our prices and descriptive circulars.

SPECIALTIES!

Second-Hand Machinery, and Bargains in Every Line.

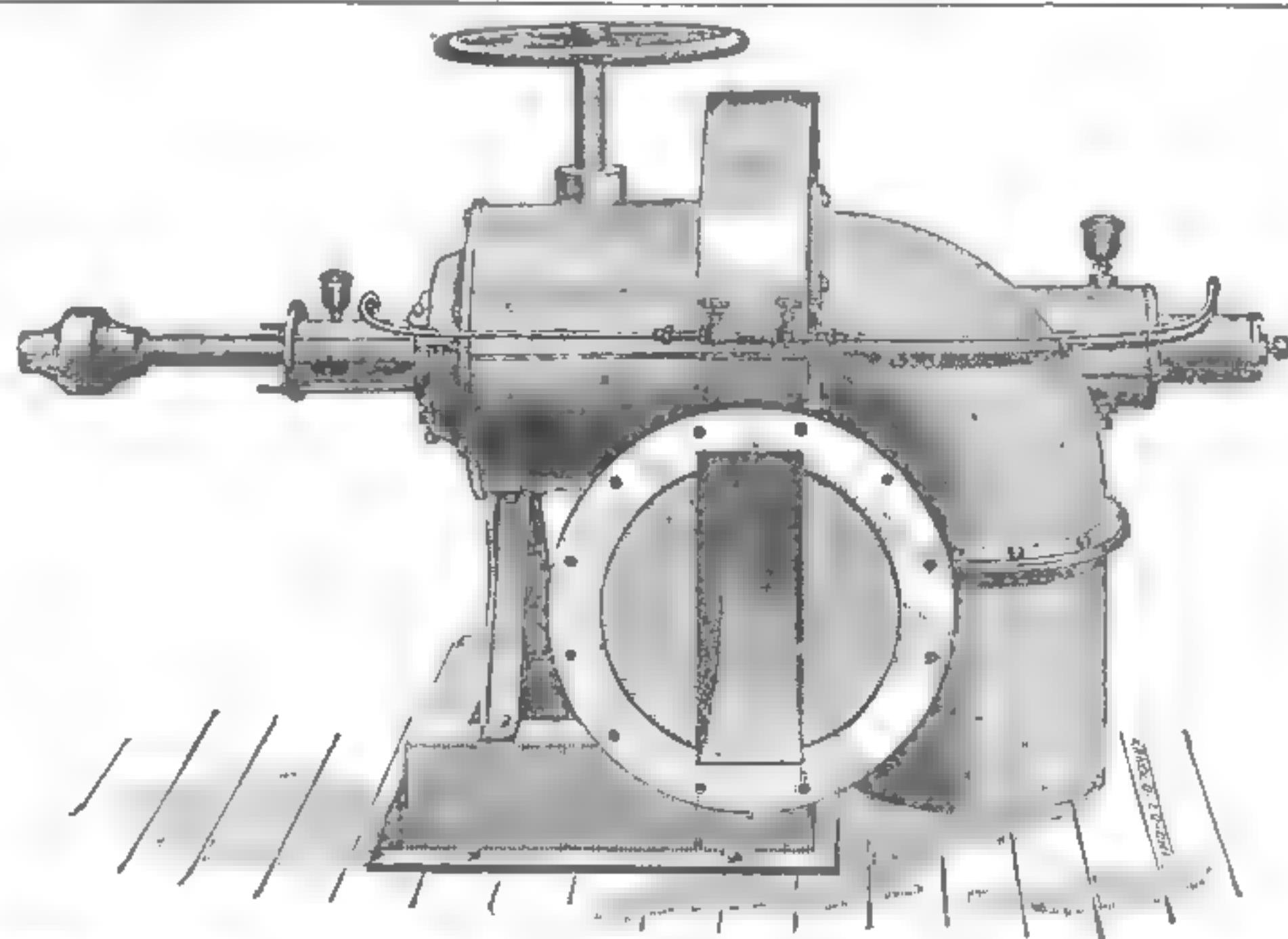
SEND FOR CATALOGUE OF

The Best Turbines!

VERTICAL OR HORIZONTAL,

With or Without Iron Flumes,

—BUILT BY THE—



Fleniken Turbine Co.
DUBUQUE, - IOWA.

EUROPEAN ECHOES.

SAYS the London "Miller" of June 16: The date of the convention of British and Irish millers, in deference to the wishes of the Scottish millers, has been altered from Tuesday, July 15, to Tuesday, July 29. This has been done with a view of causing the convention to synchronize with the show of the Highland Agricultural Society, which is fixed for July 29, and will be open till August 1, at Dundee.

SAYS the London "Millers' Gazette": As will be seen from the foregoing, the crops in most, if not all, the European countries promise well. In no country are there indications of such abundant crops as, for instance, in 1887, when the total wheat crop of Europe reached 172,000,000 quarters; nor does there seem very strong probability that the crop of 1888, about 162,000,000 quarters, will be reached. Of course the weather during the next two months may mar the present favorable outlook, but from the present indications the total yield for Europe may reach from 155,000,000 to 160,000,-000 quarters, against 142,000,000 last year, against which has to be put as an offset a probable deficiency of at least 7,000,000 quarters in the American crop.

SAYS the London "Financial Times" of June 19: It is seldom that committees of investigation produce such a damning document as the report just issued by the shareholders appointed to inquire into the affairs of the Yorkshire Aerated Bread Company. The directors are charged on no less than nine distinct counts, the most serious of which are "paying away over 40 per cent. of the capital subscribed in promotion expenses," "paying a dividend not properly earned," and "telling the shareholders from time to time that a good profit was being made while a loss was really being incurred." The late directors are also found guilty by the committee of "neglecting to keep true accounts according to the provisions of the articles." Unless such a grave indictment as this can be refuted promptly the matter will hardly be allowed to rest where it is.

AN article on June 17 in a Vienna paper states that private reports on the state of the crop in Hungary, received within the last few days, have given a much less favorable account of the prospects than has been previously published, and they have now been confirmed by the official reports. Unfavorable weather, accompanied by frost, has been experienced in many places, especially in Upper Hungary. Rust has appeared extensively. The autumn wheat has been much beaten down; in general, however, a good medium wheat harvest may be expected. Winter rye promises a good medium crop, and the spring rye a medium yield. Winter barley promises tolerably well, but the spring sowings are much less satisfactory. Oats seems likely to prove a poor crop, and the same may be said of rape seed. Still later telegraphic reports say that rust is spreading rapidly among the wheat and oats.

SAYS the London "Millers' Gazette" of June 16: The May returns of the Board of Trade show a slight increase in our imports of flour, the total being 1,517,852 hundredweights, against 1,501,444 hundredweights in April, and 1,163,887 hundredweights in May last year. The United States and Austria-Hungary have sent the following quantities so far this season compared with last season:

	United States		Austria-Hungary	
	1889-90. cwt.	1888-89. cwt.	1889-90. cwt.	1888-89. cwt.
May.....	1,258,192	813,094	813,094	140,921
April.....	1,330,896	738,649	96,584	162,939
March.....	1,610,751	521,415	84,442	173,149
February.....	806,503	684,271	116,667	193,312
January.....	1,329,487	656,819	128,027	223,323
December.....	1,155,920	575,553	183,077	301,293
November.....	1,233,144	187,155	162,781	132,073
October.....	856,553	1,169,713	58,945	171,614
September.....	963,288	1,086,331	66,767	121,145
Total.....	10,062,635	6,883,000	1,710,584	1,622,768

1889-90. 1888-89. 1887-88.
cwt. cwt. cwt.

Total from all countries.... 13,299,008 10,692,881 13,883,442

With regard to America's exports, official returns are to hand for the ten months ended April 30, which show that the shipments in April were again much larger than last year, 1,156,-533 barrels, against 646,365 barrels, while the total for the ten months is 10,142,779 barrels, against 7,542,837 barrels last year. The movement during the past two months has, however, fallen off considerably, the increased price of wheat on that side compelling American millers to ask higher prices than are obtainable here. For some time indeed the limits have been about 2s. per sack above the level here. For the twelve months ended June 30 last year the total exports were 9,026,886 barrels, and in 1887-8 they were no less than 11,840,-450 barrels. This season they will probably exceed 12,250,-000 barrels.

CATARRH.

CATARRHAL DEAFNESS—HAY FEVER.

A NEW HOME TREATMENT.

Sufferers are not generally aware that these diseases are contagious, or that they are due to the presence of living parasites in the lining membrane of the nose and eustachian tubes. Microscopic research, however, has proved this to be a fact, and the result of this discovery is that a simple remedy has been formulated whereby catarrh, catarrhal deafness and hay fever are permanently cured in from one to three simple applications made at home by the patient once in two weeks.

N. B.—This treatment is not a snuff or an ointment; both have been discarded by reputable physicians as injurious. A pamphlet explaining this new treatment is sent free on receipt of stamp to pay postage, by A. H. Dixon & Son, 337 and 339 West King street, Toronto, Canada.—*Christian Advocate*.

Sufferers from Catarrhal troubles should carefully read the above.

The inspection and grading of flour, in order that its value shall not be so fluctuating as it now is by the retention of each individual miller's brand, is necessary for simplicity of selling. We do not argue for eliminating the brand, but that it be given one that will represent its general market value.—*Indianapolis "Millstone"*.



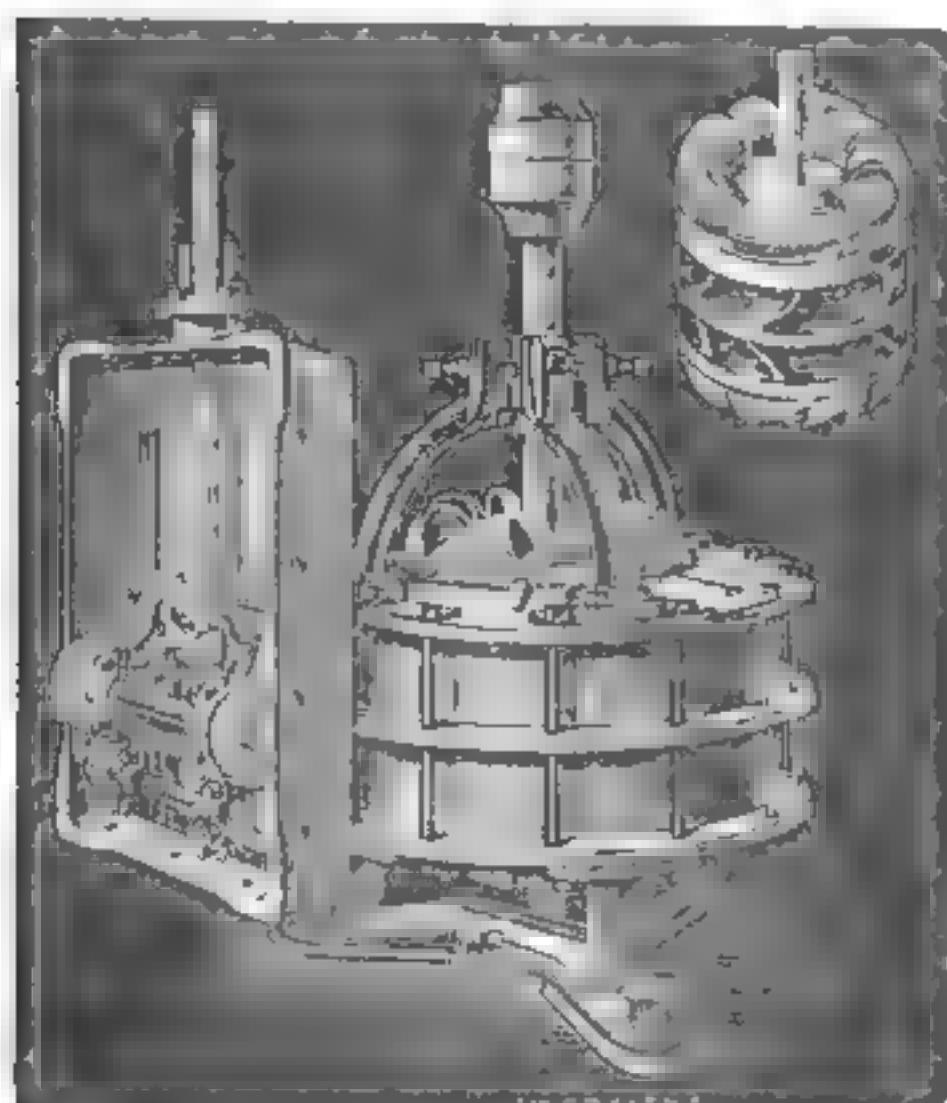
AMERICAN INJECTOR CO., NO. 175 Larned St., West, DETROIT, MICH.

WHEN BUYING A BOILER FEEDER
BUY THE BEST.

Satisfaction Guaranteed.

WRITE FOR CATALOGUE, PRICES,
TERMS, ETC.

LITTLE GIANT WATER WHEEL



—MANUFACTURED BY—

MUNSON BROS.

UTICA, - - N. Y.

Simple in Construction, Durable & Cheap.

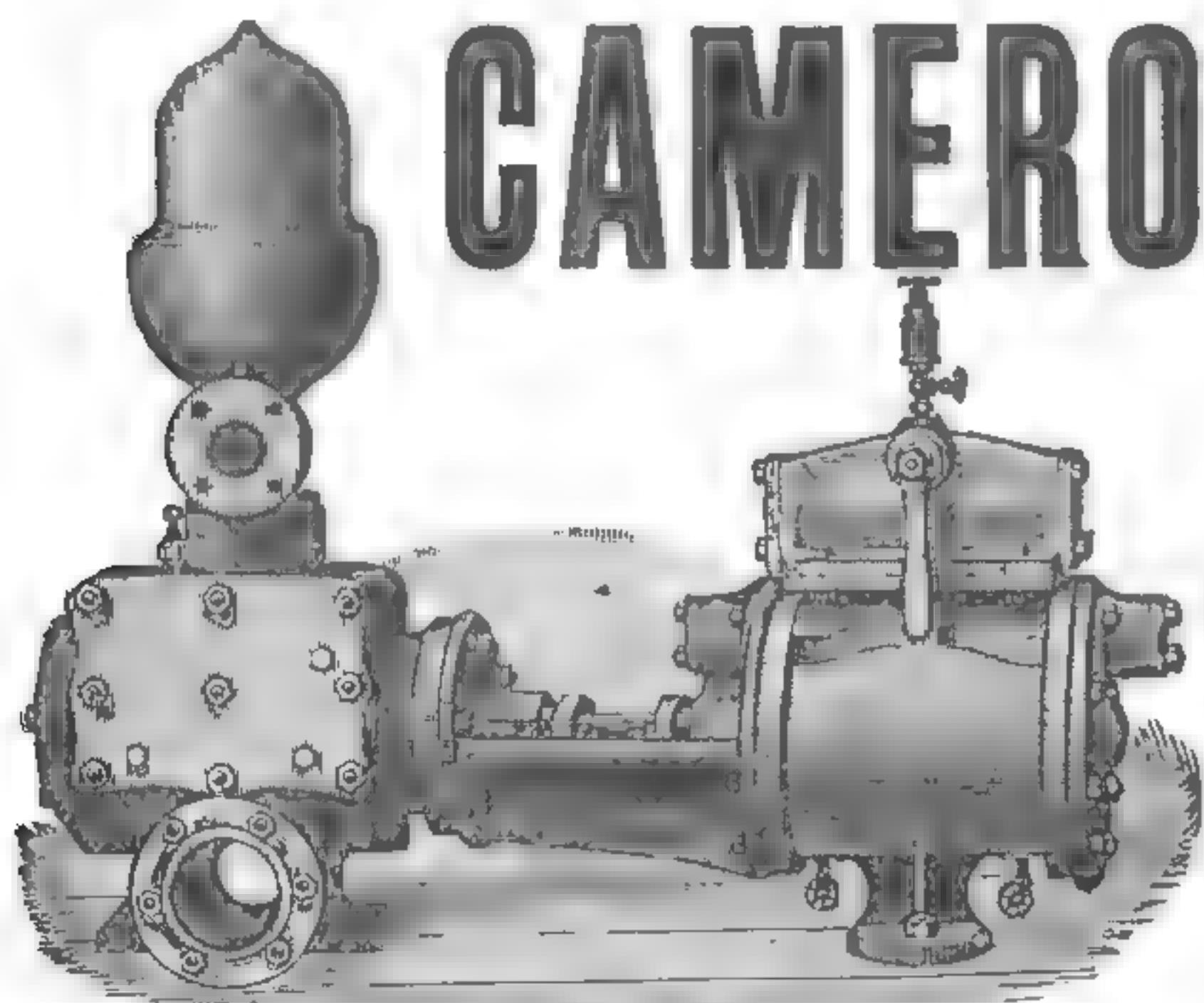
SEND FOR PRICES.

CAMERON STEAM PUMP

THE STANDARD OF EXCELLENCE.

*SIMPLE! COMPACT! DURABLE!
"NO OUTSIDE VALVE GEAR."*

Steam, Air & Vacuum Pumps in Every Variety

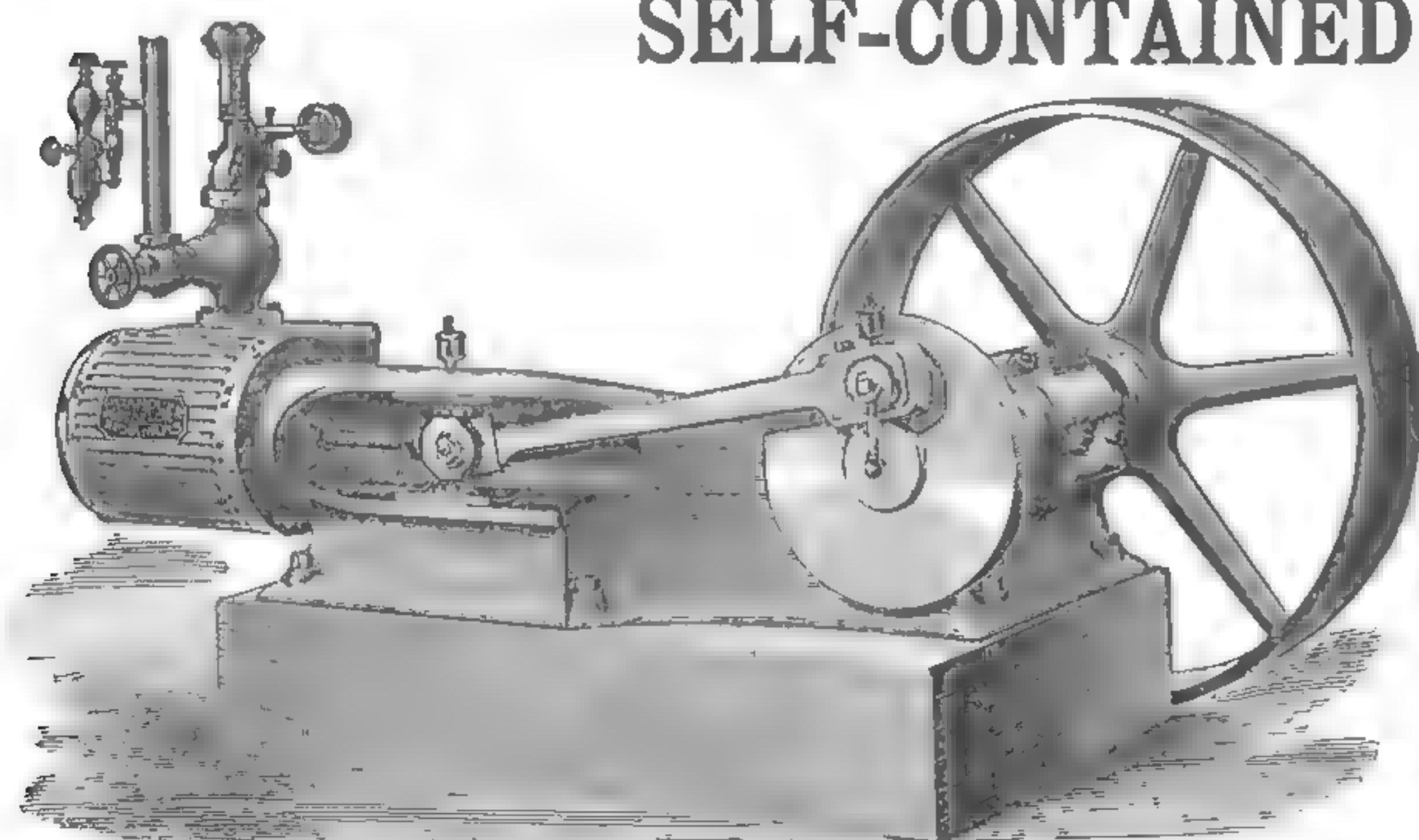


FOR ILLUSTRATED CATALOGUE ADDRESS

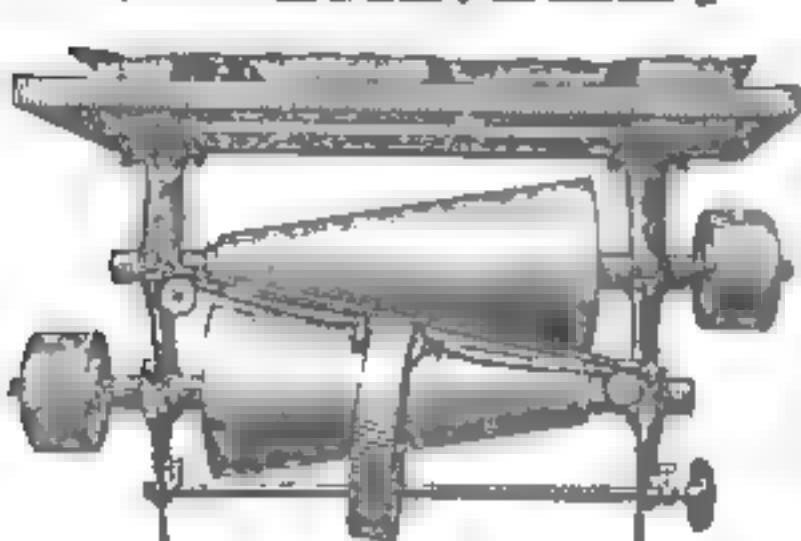
The A. S. CAMERON STEAM PUMP WORKS

Foot of East 28d Street, - New York.

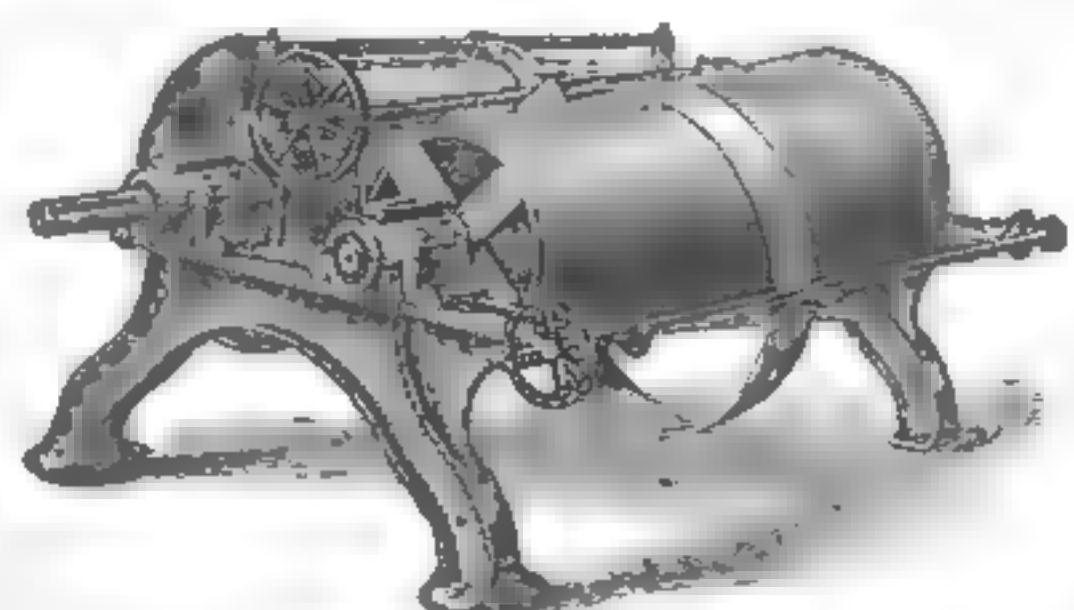
SELF-CONTAINED STEAM ENGINES

Stationary or
Semi-Portable.High Standard Maintained.
Prices Greatly Reduced.WRITE FOR NEW ILLUSTRATED
CATALOGUE NO. 32.**Chandler & Taylor Co.**
Indianapolis, Ind.Engines, Saw-Mills and Drain Tile
Machinery a Specialty.

THE EVANS FRICTION CONE & FRICTIONAL GEARING

"PATENTED."

This cut represents a set of hanging cone pulleys. This pattern is intended for that class of machinery that stops and starts at the same speed, and at the same time be able to change the speed more or less while running. These cones are also fitted with a governor where a steady motion is required and the initial power is

fluctuating. All sizes made from $\frac{1}{2}$ Horse Power to 50 Horse Power. SEND FOR ILLUSTRATED CATALOGUE.

SHIPPERS

**EVANS FRICTION CONE CO., 85 Water St., BOSTON.**



OFFICE OF THE MILLING WORLD,
BUFFALO, N. Y., July 5, 1890.

Friday of last week was a day of slow, featureless markets, somewhat irregular and destitute of news. In New York June wheat closed at 92 $\frac{3}{4}$ c., with Atlantic port receipts 28,052, exports 60,719, and options 1,760,000 bushels. June corn closed at 41c., with receipts 306,907, exports 185,051, and options 680,000 bushels. June oats closed at 38 $\frac{3}{4}$ c., with receipts 131,290, exports 50,401, and options 180,000 bushels. Wheat flour was no lower, but easier, in sympathy with wheat. Receipts were 3,964 sacks and 15,908 barrels, and exports 3,870 sacks and 5,740 barrels. The other lines were featureless.

Saturday brought dull and easier markets on foreign and western selling, with higher closing on buying by shorts and on reports of very hot and dry weather in the West. June wheat closed at 92 $\frac{3}{4}$ c., and July at the same figure, with receipts 41,336, exports 84,646, and options 976,000 bushels. June and July corn closed at 41 $\frac{1}{2}$ c., with receipts 237,988, and exports 141,097, and options 819,000 bushels. June and July oats closed at 38 $\frac{3}{4}$ c., with receipts 86,470, exports 21,325, and options 25,000 bushels. Wheat flour was dull and unchanged, with no buyers visible. Receipts were 4,074 sacks and 14,583 barrels, and exports 500 sacks and 1,720 barrels. The minor lines were featureless.

Monday brought higher opening markets on better cables, smaller stocks, reports of exceedingly wet weather in European wheat countries, and reports of serious damage from rust in Austria-Hungary, and the closing was easier on selling in the West. July wheat closed at 93c., with receipts 187,857, exports 59,329, and options 2,776,000 bushels. July corn closed at 41c., with receipts 326,645, exports 144,185, and options 700,000 bushels. July oats closed at 38 $\frac{3}{4}$ c., with receipts 107,858, exports 15,445, and options 150,000 bushels. Wheat flour was moderately active all around, and holders were steadier on the higher grades of both spring and winter wheat. Prices showed no quotable changes. Receipts included 7,194 sacks and 15,288 barrels, and exports 9,839 sacks and 16,573 barrels. The minor lines were quiet and featureless. The visible supply in the United States and Canada was:

	1890.	1889.	1888.
	June 28.	June 29.	June 30.
Wheat	20,174,885	15,300,715	23,623,989
Corn.....	14,822,608	9,490,334	11,308,521
Oats.....	5,050,671	5,250,113	4,888,172
Rye	621,120	916,765	193,252
Barley	488,576	281,507	159,674

Tuesday brought generally stronger markets on better cables and liberal shipments from Atlantic ports. July wheat closed at 94 $\frac{1}{4}$ c., with receipts 227,808, exports 320,000, and options 3,500,000 bushels. July corn closed at 41 $\frac{1}{2}$ c., with receipts 512,257, exports 128,822, and options 2,600,000 bushels. July oats closed at 34c., with receipts 146,806, exports 29,731, and options 278,000 bushels. Rye grain was quiet at the following quotations: Western 55@56c; Canada 55 $\frac{1}{2}$ @57c; State 57@58c delivered; car lots ungraded on the track 53@55c. Malt was steady but slow at the following figures: 85@90c for city-made Canada, 80@85c for country do, 75@78c for six-rowed and 68@70c for two-rowed asked. Mill-feed was quiet at 60@65c. for 40-lb., 55@60c. for 60-lb., 65@70c. for 80-lb., 75@80c. for 100-lb., 80@85c. for sharps, and 70@75c. for rye feed.

Wheat flour was strong on all brands, and in some lines there was an increase of 5@10c. in sympathy with wheat. Receipts included 7,425 sacks and 15,490 barrels, and exports 1,520 sacks and 2,111 barrels. In New York patents sold

freely at \$5.00@5.10 for spring and \$4.85@5.20 for winter brands. Rye flour was in fair demand at \$3.00@3.25. Corn products were quiet and steady at the following quotations: Coarse bag meal 80@82c; fine yellow 90@92c; fine white 95@98c; Southern and Western in barrels \$2.30@2.40; yellow granulated \$2.55@2.60; white do \$2.65@2.70; flour \$2.95@\$3.20; Brandywine \$2.45.

The following shows the amount of wheat and flour, together with the amount of corn on passage to United Kingdom, for ports of call or direct ports for the week mentioned:

	1890.	1889.
	July 1.	July 2.
Wheat and flour, qrs....	2,434,000	1,570,000
Corn, qrs.....	460,000	542,000

The following shows the amount of wheat and corn on passage to the Continent for the past week and for the same week last year:

	1890.	1889.
	July 1.	July 2.
Wheat, qrs.....	570,000	531,000
Corn, qrs.....	390,000	279,000
Shipments India wheat to U. K.....	52,500	
do do Continent..	22,500	

The imports into the United Kingdom for the past week, the previous week and for the same week in previous year were as follows:

	1890.	1890.	1889.
	July 1.	June 24.	July 2.
Wheat, qrs	217,000	407,000	371,000
Corn, qrs.....	113,000	256,000	196,000
Four, bbls.....	121,000	112,000	137,000

Wednesday brought active and generally firmer markets. July wheat closed at 94 $\frac{1}{4}$ c., with receipts 47,000, exports 52,000, spot sales 92,000, and options 2,960,000 bushels. July corn closed at 41 $\frac{1}{2}$ c., with receipts 207,000, exports 181,000, spot sales 341,000, and options 600,000 bushels. July oats closed at 34c., with receipts 64,000, spot sales 104,000, and options 95,000 bushels. Wheat flour was more active and firmer generally. Receipts were 18,000, and sales 30,000 packages. Sales were made at the following quotations: Low extras \$2.45@3.00; city mills \$4.45@4.50; city mill patents \$4.75@5.25; winter wheat low grade \$2.45@3.00; fair to fancy \$3.15@4.80; patents \$4.40@5.25; Minnesota clear \$3.65@4.50; straight \$3.75@4.85; Minnesota straight patents \$4.25@5.30; rye mixtures \$3.55@4.15; superfine \$2.10@2.85.

Thursday brought firm and quiet markets. July wheat closed at 94 $\frac{1}{4}$ c., with receipts 62,200, exports 79,000, and options 1,664 bushels. July corn closed at 41 $\frac{1}{2}$ c., with receipts 68,000, exports 209,000, and options 744,000 bushels. July oats closed at 34c., with the receipts 35,000 bushels and the options 55,000 bushels. Wheat flour was quiet and unchanged, with receipts 9,829 and sales 20,800 packages. The Minneapolis output last week was 88,883 barrels. The minor lines were unchanged.

BUFFALO MARKETS.

WHEAT—The market for spring wheat was active to-day, and closed strong at higher prices. The following sales were reported: No. 1 hard, 24,000 bu. c. i. f. at 94 $\frac{1}{2}$ c, 40,000 spot at 95 $\frac{1}{2}$ c; 10,000 do at 95 $\frac{1}{2}$ c, 15,000 to arrive at 95 $\frac{1}{2}$ c, and 600 at 96 $\frac{1}{2}$ c, when it is closed;

No. 2 Northern, 5,800 bu c. i. f. at 90 $\frac{1}{2}$ c, 25,000 do at 90 $\frac{1}{2}$ c, and 5,000 spot at 92c; of No. 1 Oregon white 2 cars were sold at 93c.

CORN—The market was half a cent higher all around to-day, the quotations being 40c for No. 2 yellow, 39 $\frac{1}{2}$ c for No. 3 yellow and No. 2 corn, and 38 $\frac{1}{2}$ c for No. 3 corn.

OATS—The market closed strong at 33 $\frac{1}{2}$ c in store for No. 2 white oats, and 32 $\frac{1}{2}$ c on track for No. 2 mixed.

There was very little trading to-day.

RYE—Trade very light; one car No. 2 sold at 54c.

MILL-FEED—City-ground coarse winter, \$12.75@13.00 per ton; fine do. \$12.75@13.00; finished winter middlings, \$14.00@15.00; coarse spring do, \$12.25@12.75.

FLOUR MARKET.

Spring Wheat. Winter Wheat.

Patents..... \$5.75@6.00 Patents... .. \$5.25@5.75

Straight..... 4.75@5.00 Straight... .. 4.75@5.00

Bakers..... 4.25@4.75 Clear 4.25@4.75

Red Dog..... 2.00@3.00 Low grades . 3.00@4.52

Rye flour.... 3.50@— Graham 4.50@—

Retail prices 50c per bbl above these quotations.

The Cracker combinations are as follows:

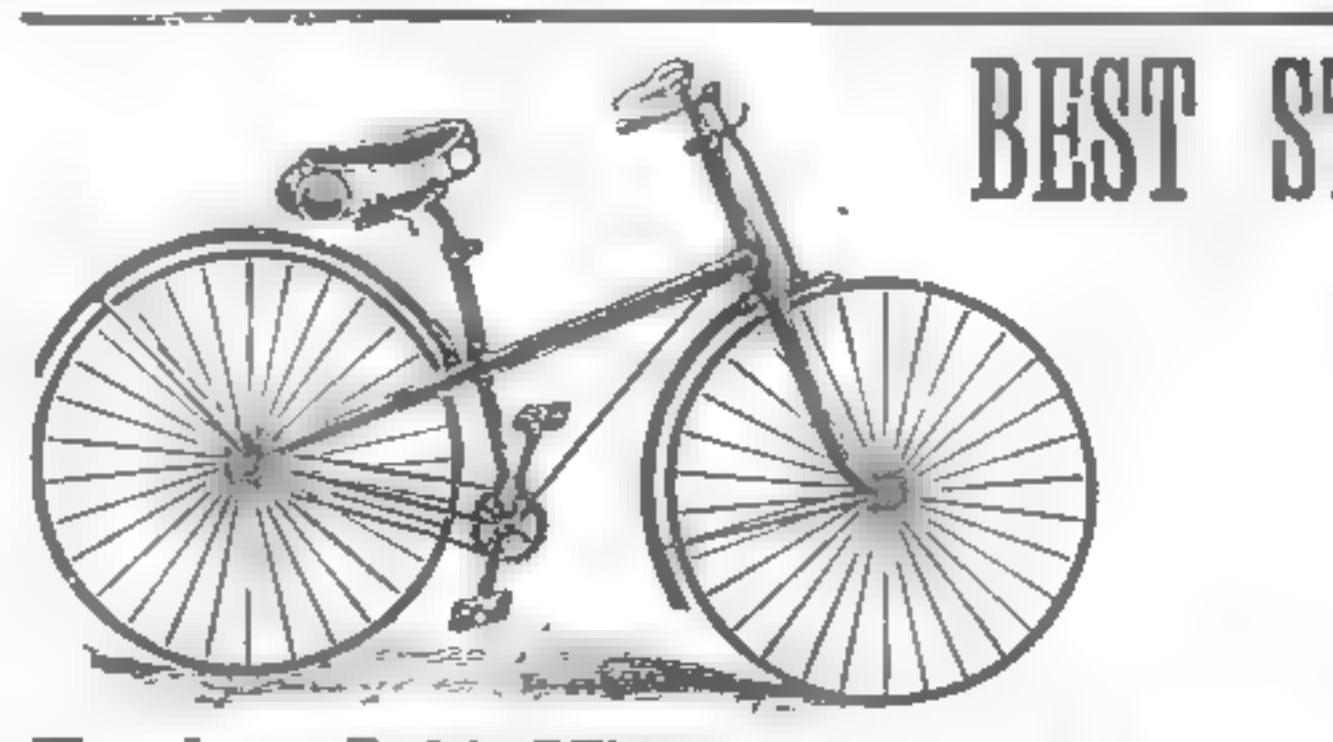
The New York Biscuit Company, with a capital of \$5,000,000. In this pool were taken all the leading cracker bakers of New York, Brooklyn, New Jersey and the New England States.

The United States Baking Company, with a capital of \$3,000,000, takes in all the bakeries of any note in the States of Ohio, Indiana and Michigan and a part of the State of Pennsylvania, and last the American Biscuit and Manufacturing Company, with a capital of \$10,000,000, which includes the leading cracker bakers of the West and South.

Twenty years ago a farm in England could hardly be bought at any price, and never under \$300 an acre. Now many farms are for sale at \$120 an acre. But no one wants a farm in England. No one can profitably farm there on \$200 land and compete with \$20 land in America with freights 20 cents per 100 pounds from New York.

Science has devised a new process for extracting oil from Indian corn, and an exchange thinks the discovery may prove a boom to the farmers of Kansas. That process was discovered many years ago by the domestic hog and is practiced by that useful animal in all sections of Kansas.

The New Stamford Roller Mill Co. is a Stamford, Ky., concern that will operate the roller mill in that town.



Easiest LADIES' Tricycle Known

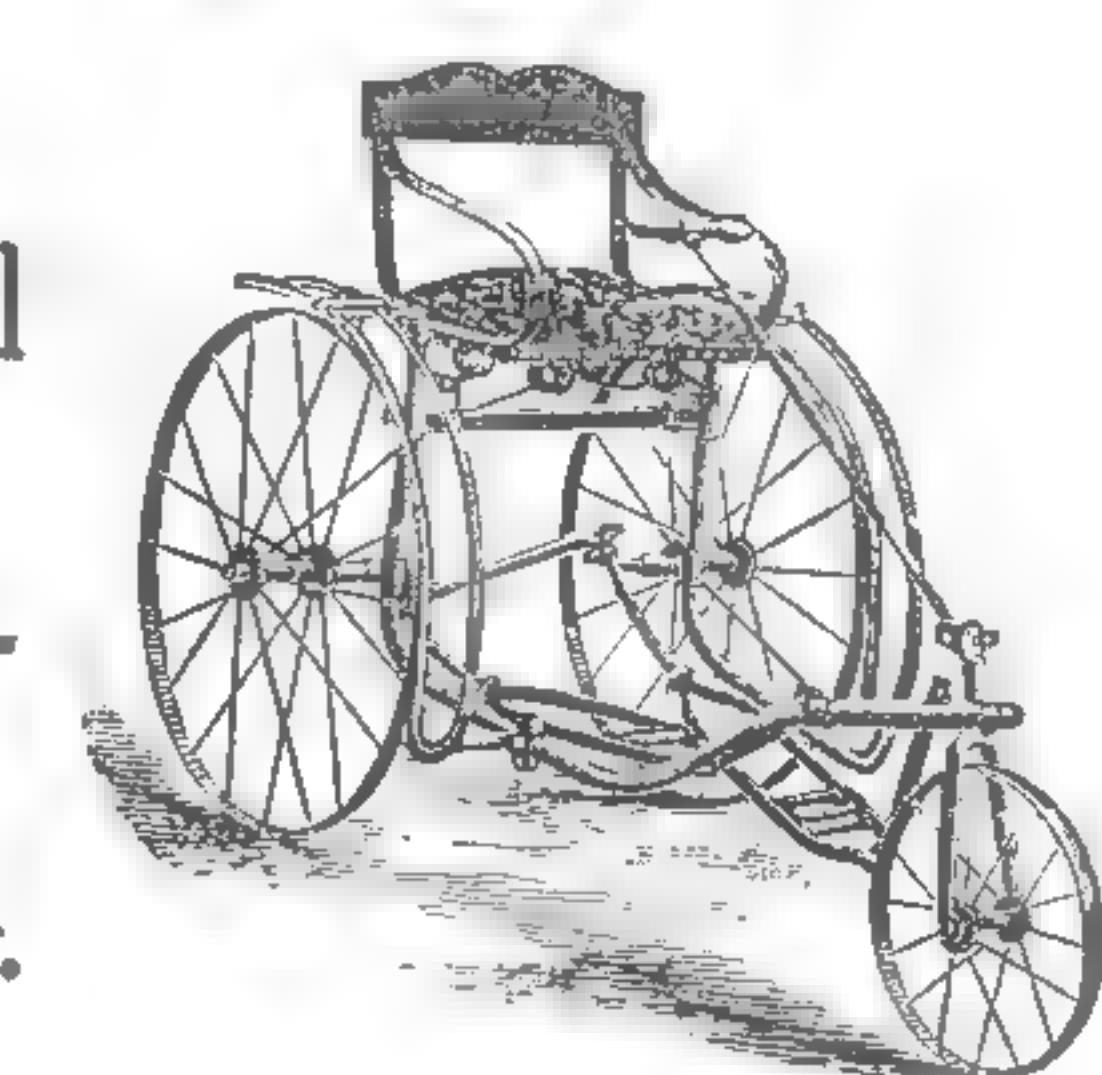
Our Tricycles the Only Machine ever Recommended by Physicians for Ladies and Girls of a Delicate Constitution.

THE BUFFALO TRICYCLE CO.

Manufacturers of Ladies' and Girls' Tricycles, Ladies' and Boys' Safety Bicycles, Etc., Etc.

640 Linwood Ave., BUFFALO, N. Y.

SEND FOR CATALOGUE AND PRICES.



BEST STEEL SAFETY MADE FOR

\$35



RELIANCE OIL & GREASE CO., CLEVELAND, O..

—MANUFACTURERS OF—

Finest Lubricants for Milling Plants. A Challenge to the World.

WRITE US. "VALVE OLEINE"—675 Degrees Fire Test, Cylinder Oil. "RUSSIAN"—Engine and Machine Oil.

"CHIEF"—Roller Mill Lubricant.

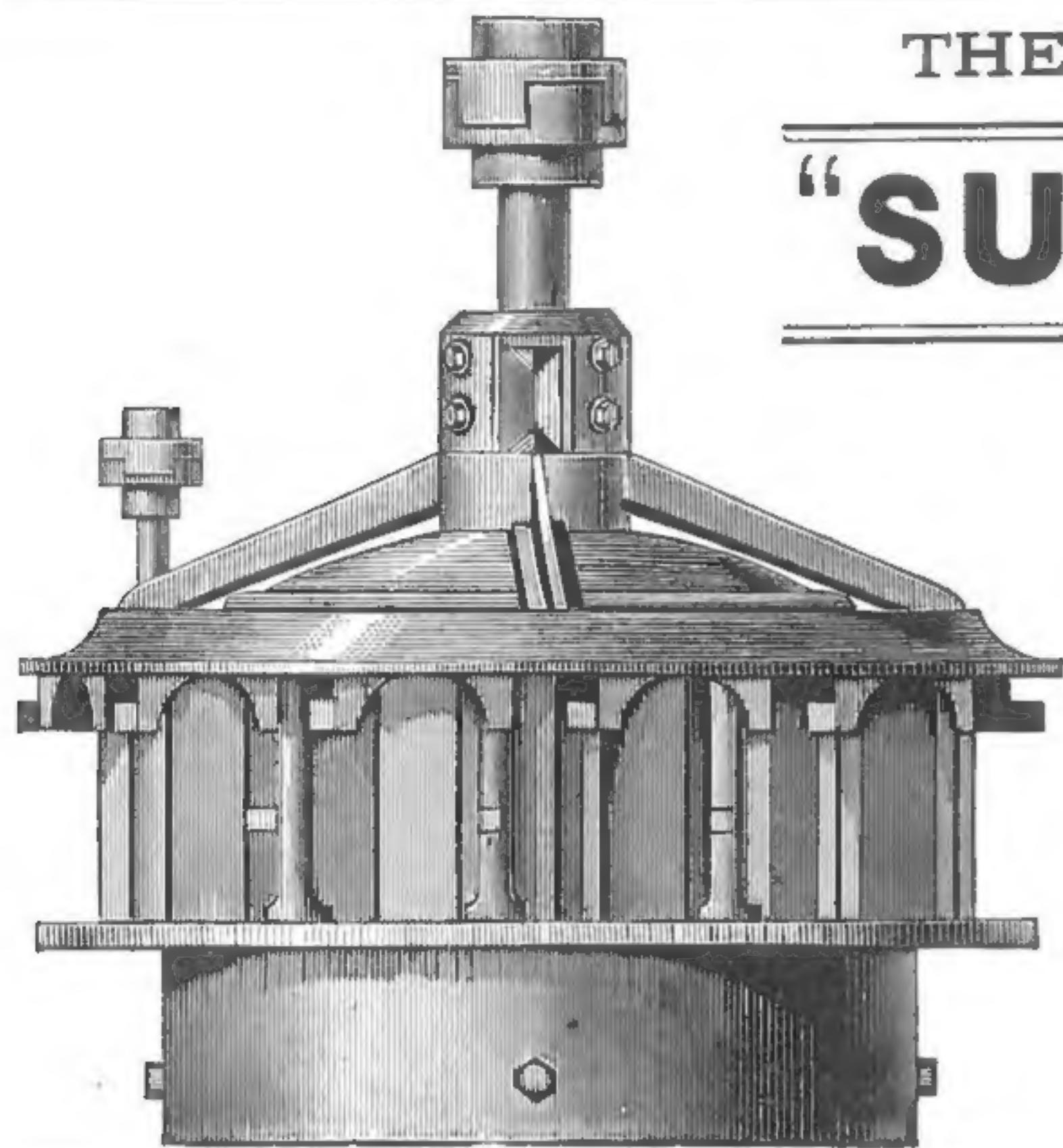
"ANCHOR"—Roller Mill Grease.

"NIAGARA"—Belt Grease.

SPECIAL
HIGH GRADE
PRODUCTS

"CHELSEA"—Scale Solvent, Best on Market. Agents Wanted.

FREE—SAMPLES, CATALOGUE, AND ALL INFORMATION.



THE IMPROVED "SUCCESS"

PERCENTAGE:

Full Gate, - - -	86.29
½ Gate, - - -	86.07
¾ Gate, - - -	81.90

—(:0:)—

This Wheel Is Both Durable and Cheap. Send for Pamphlet to

S. MORGAN SMITH
YORK, - PA.

C. O. Bartlett's Net Prices. DUFOUR BOLTING CLOTH.

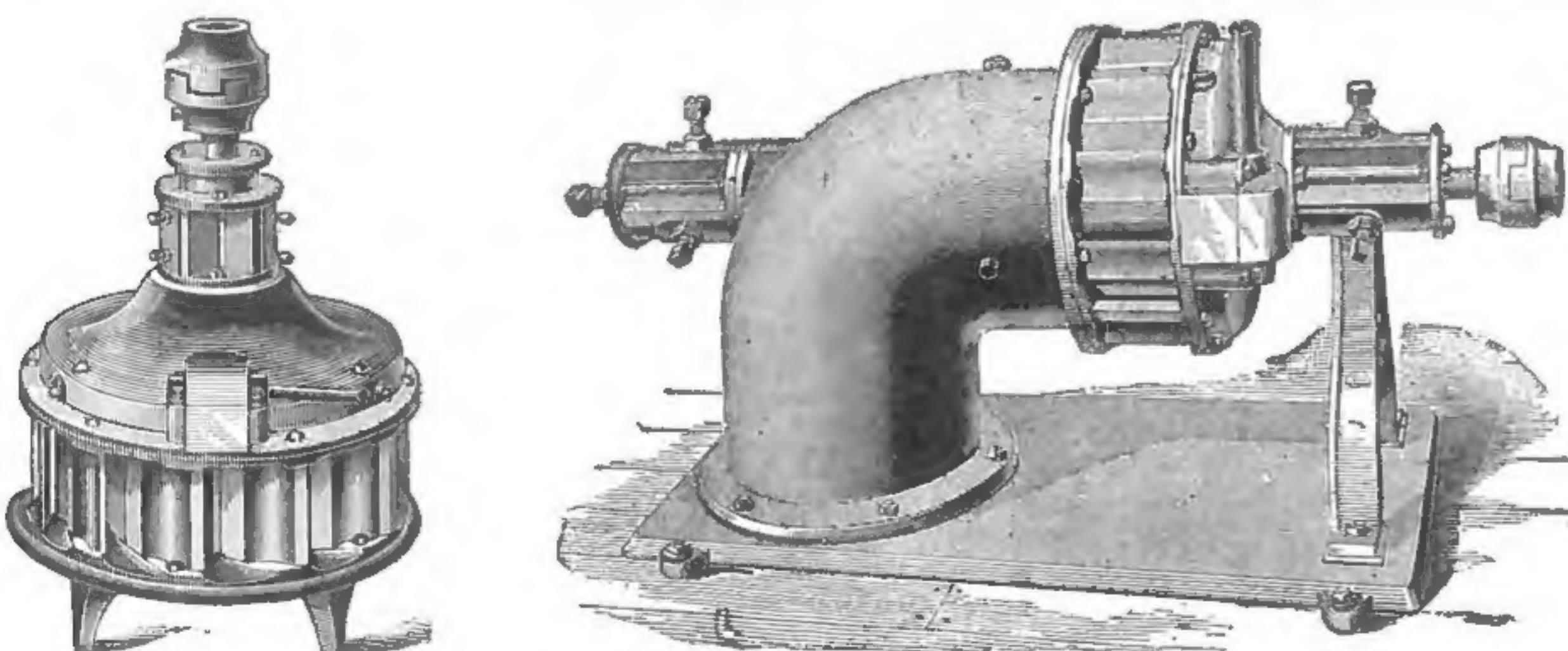
0000 .....	.86	2.....	\$1.10	7.....	\$1.46	12.....	\$1.86	Link Belting.
000.....	.91	3.....	1.20	8.....	1.50	13.....	2.16	Sprocket Wheels.
00.....	.95	4.....	1.27	9.....	1.60	14.....	2.34	Shafting, Pulleys, Etc.
0.....	.98	5.....	1.33	10.....	1.65	15.....	2.58	General Mill Machinery.
1.....	\$1.04	6.....	1.46	11.....	1.74	16.....	2.81	Write for Prices.

C. O. BARTLETT, CLEVELAND, OHIO.

WHEN WRITING TO ADVERTISERS

PLEASE MENTION

THE MILLING WORLD.



**BURNHAMS NEW IMPROVED
STANDARD TURBINE WHEEL,
ON VERTICAL OR HORIZONTAL SHAFT.**

IT WILL PAY INTERESTED PERSONS TO INVESTIGATE THE MERITS OF THIS WHEEL BEFORE PLACING THEIR ORDER. SEND FOR NEW CATALOGUE.

BURNHAM BROS., YORK, PA.

"Cooper on Belting"

A Treatise on the Use of Belting for the Transmission of Power. With illustrations of approved and actual methods of arranging Main Driving and Quarter Twist Belts, and of Belt Fastenings. Examples and Rules in great number for exhibiting and calculating the size and driving power of belts. Plain, Particular and Practical Directions for the Treatment, Care and Management of Belts. Descriptions of many varieties of Beltings, together with chapters on the Transmission of Power by Ropes; by Iron and Wood Friction Gearing; on the Strength of Belting Leather; and on the Experimental Investigations of Morin, Briggs, and others, for determining the Friction of Belts under different tensions, which are presented clearly and fully, with the text and tables unabridged. By JOHN H. COOPER, M. E. Second Edition. One vol., dem. octavo. Cloth, \$3.50. Sent post-paid on receipt of price. Address,

McFAUL & NOLAN, BUFFALO, N. Y.

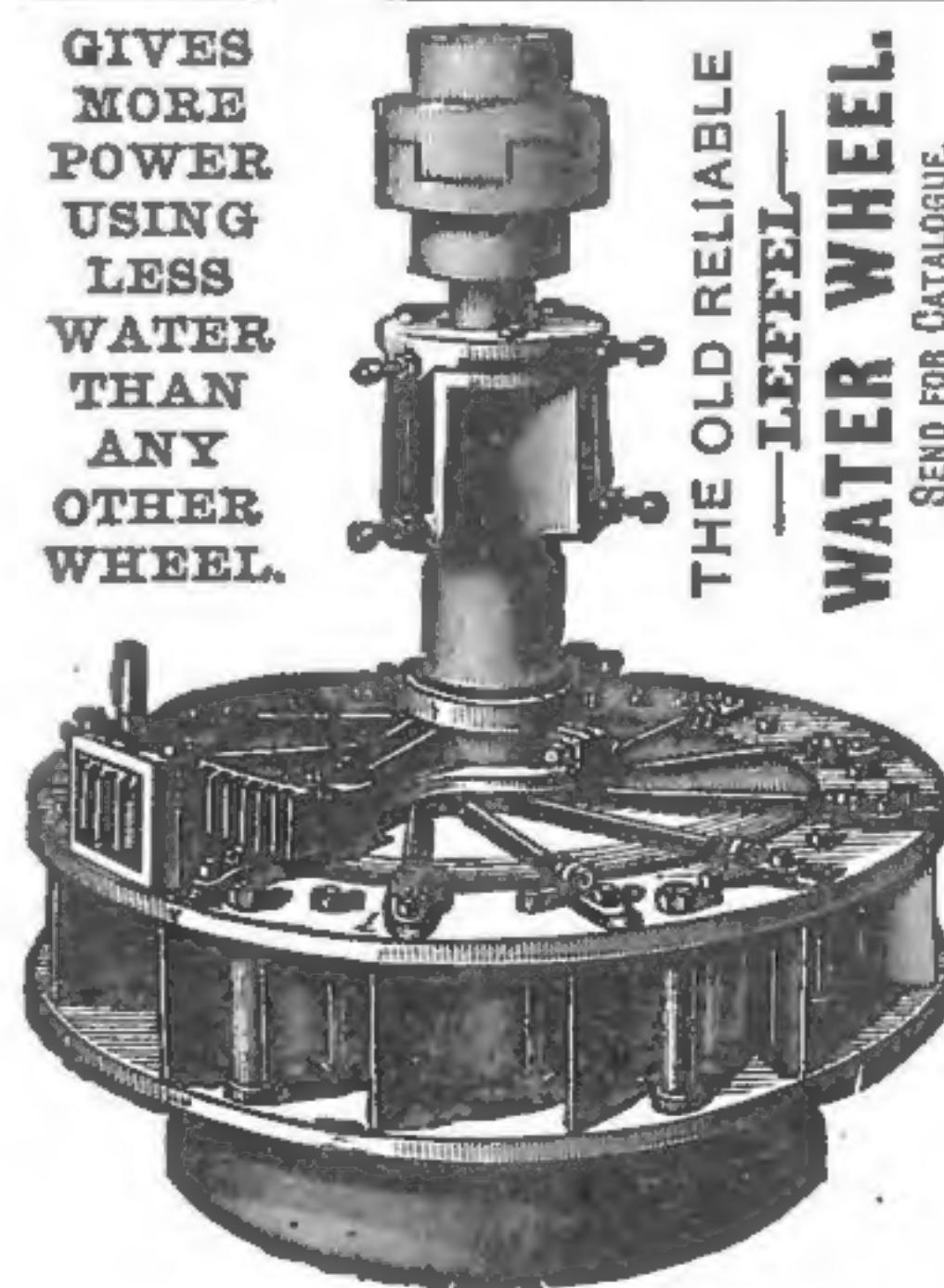


THIS WHEEL GIVES HIGH RESULTS, AND IS ACKNOWLEDGED THE BEST, MOST PRACTICAL AND EFFICIENT TURBINE MADE. FOR SIMPLICITY, DURABILITY, AND TIGHTNESS OF GATE IT HAS NO EQUAL.

State requirements and send for Catalogue to

**T. C. ALCOTT & SON,
MOUNT HOLLY, N. J.**

GIVES
MORE
POWER
USING
LESS
WATER
THAN
ANY
OTHER
WHEEL.



THE OLD RELIABLE
—LEFFEL—
WATER WHEEL
SEND FOR CATALOGUE

JAMES LEFFEL & CO.
SPRINGFIELD, O., OR 110 LIBERTY ST., N.Y.



PAYNE HIGH SPEED CORLISS ENGINE

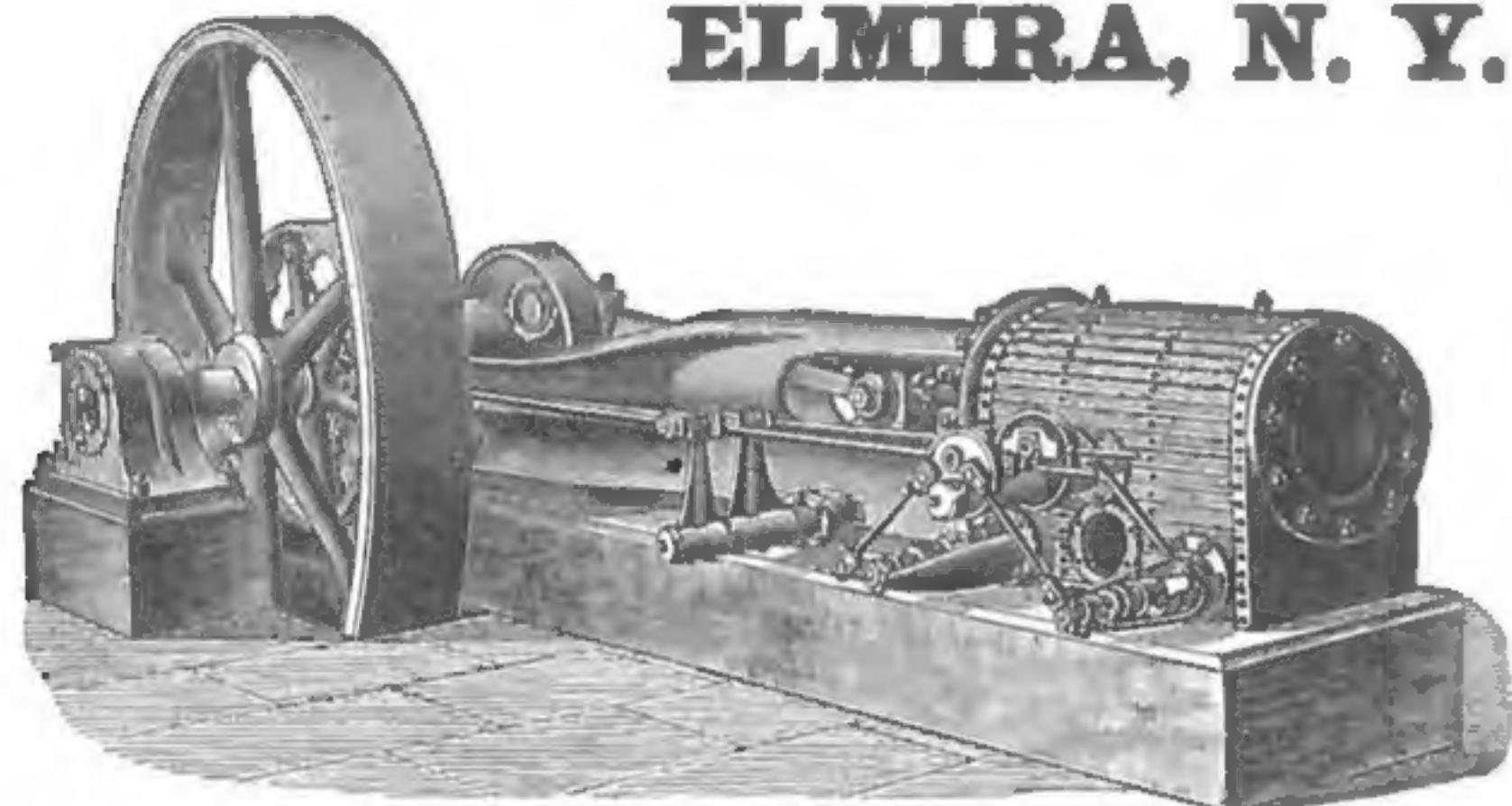
SHAFT GOVERNOR COMBINED WITH CORLISS WRIST-PLATE.

ECONOMY OF FUEL.

REGULATION EQUAL TO ANYTHING IN USE.

B. W. Payne & Sons,

ELMIRA, N. Y.



10 S. Canal Street.

CHICAGO, ILL.

45 Dey Street

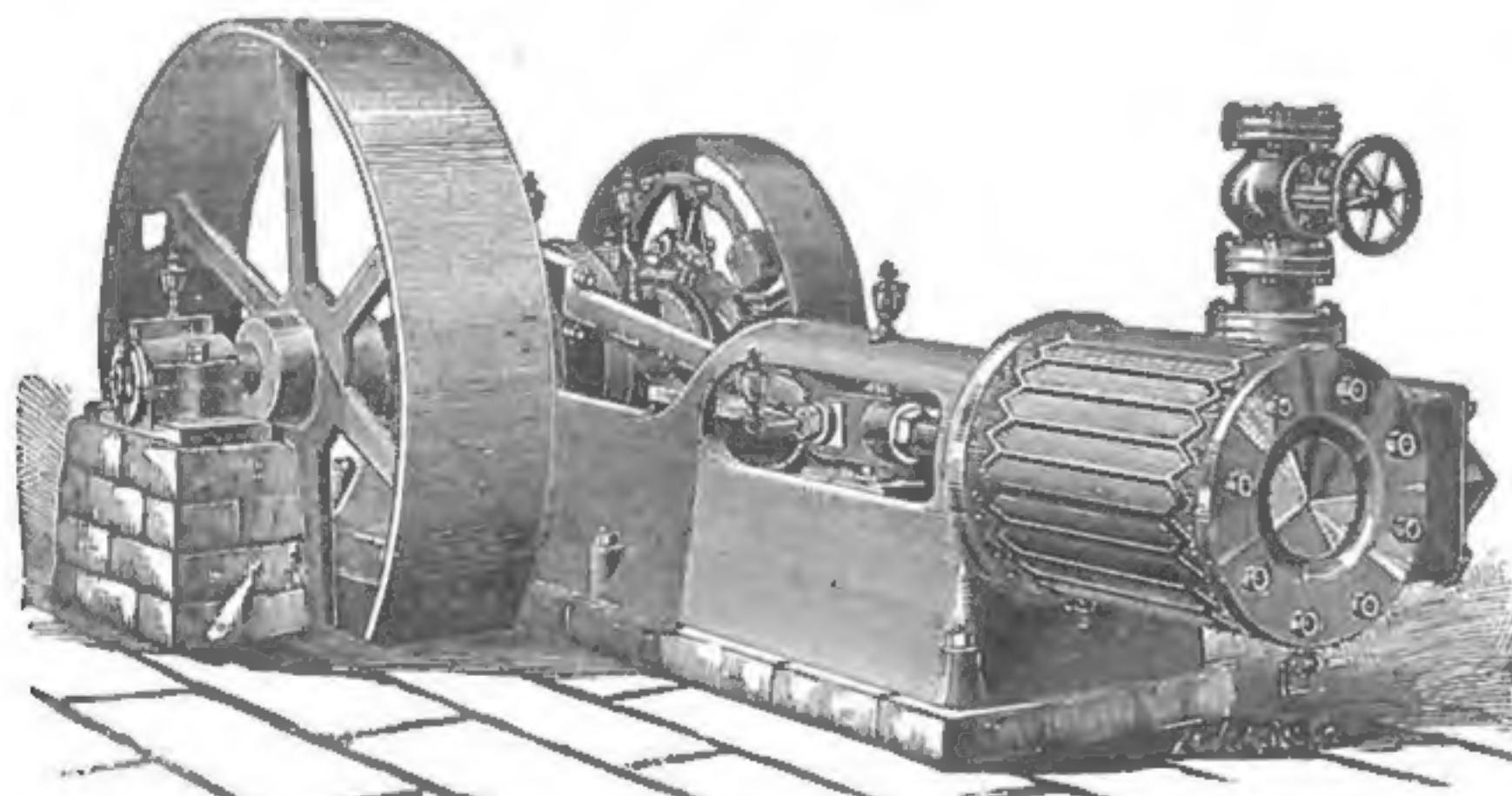
NEW YORK.

Hill, Clark & Co.

BOSTON, MASS.

AUTOMATIC ENGINES FROM 2 TO 200 HORSE POWER.

Economic Power Plants



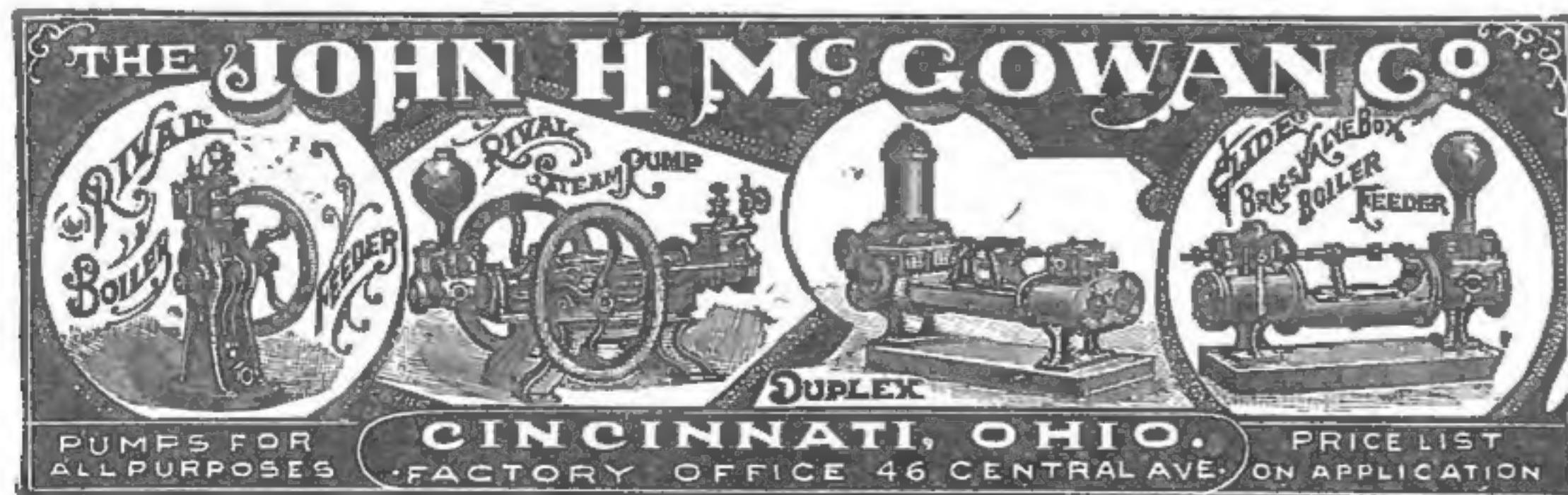
Especially Adapted to Electric Lighting and

WOOD-WORKING ESTABLISHMENTS

MANUFACTURED BY

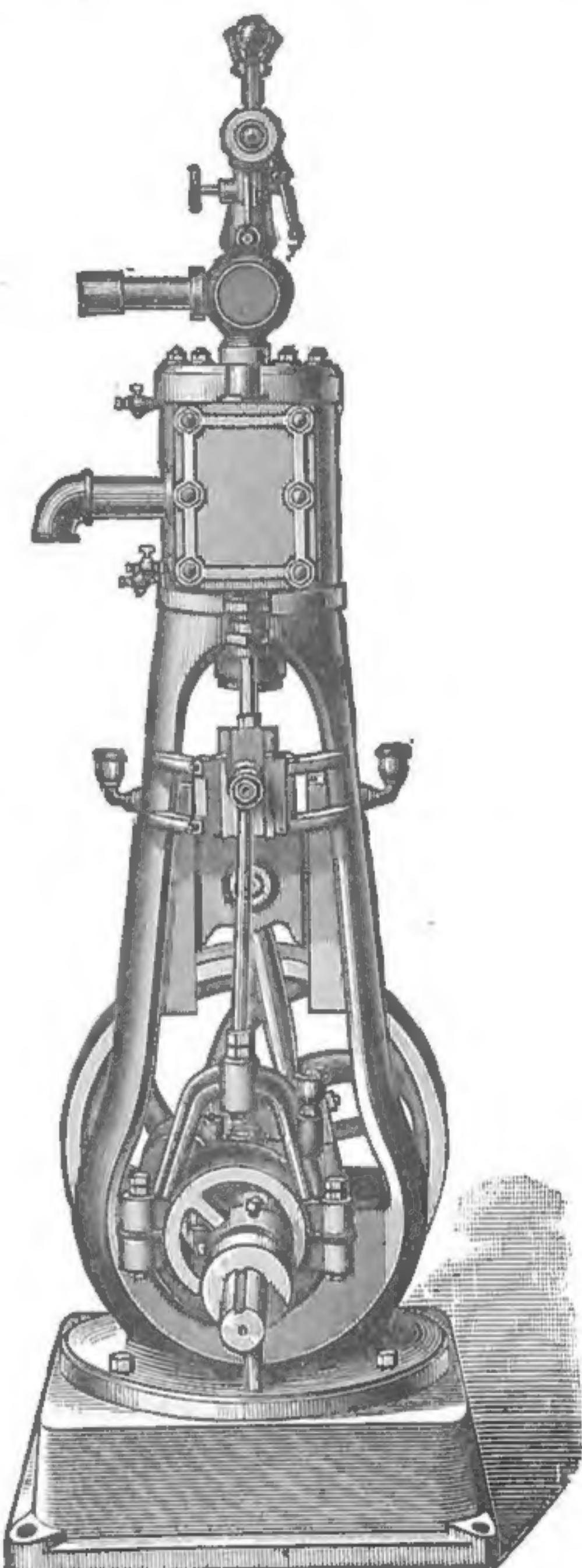
VALLEY IRON WORKS, WILLIAMSPORT, PENN.

Please Send for Our New Catalogue and Mention "The Milling World."



BRANCH HOUSE. 1425 EAST MAIN STREET, RICHMOND, VA.

AUTOMATIC VERTICAL ENGINES



Especially adapted for Small Electric Light Plants.
Perfect Regulation. Reversible Link Motion for Ma-
rine Use. Five to Fifteen Horse Power. Also man-
ufacturers of

Lathes and Special Tools

Metal Patterns, Models and Machinery Built to Order
Send for Prices and Specifications.

Lloyd & Sterrett

COR. 16TH AND STATE STS.,
ERIE, - - PENN.

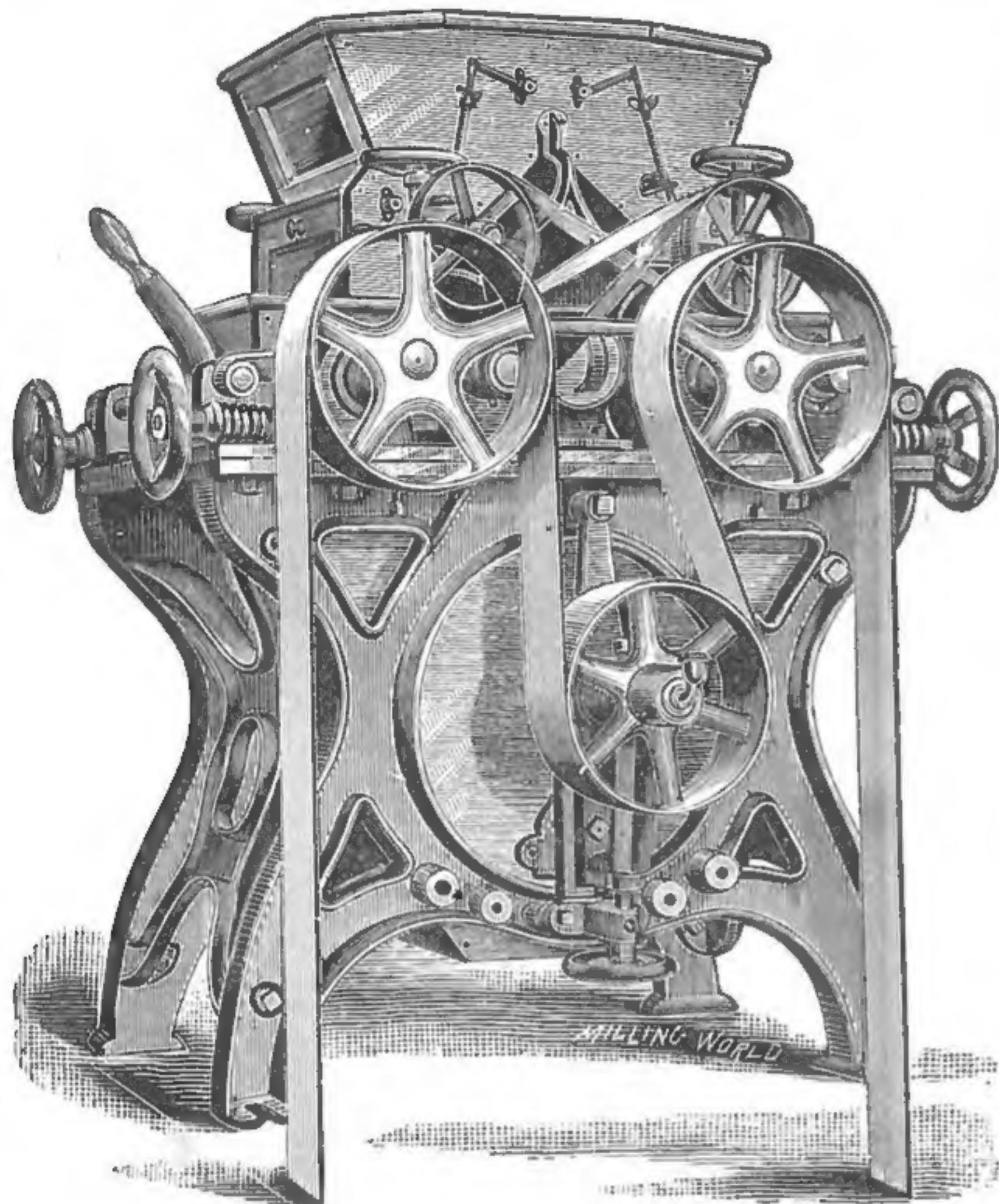
MOORE'S
PATENT



For all
kinds of coop-
erage. Thousands
in use in all parts of the
U. S. Send for Circular.

JOLIET STOVE WORKS. JOLIET ILL.

JOHN HUTCHISON MFG. CO., Mill Builders and Mill Furnishers.



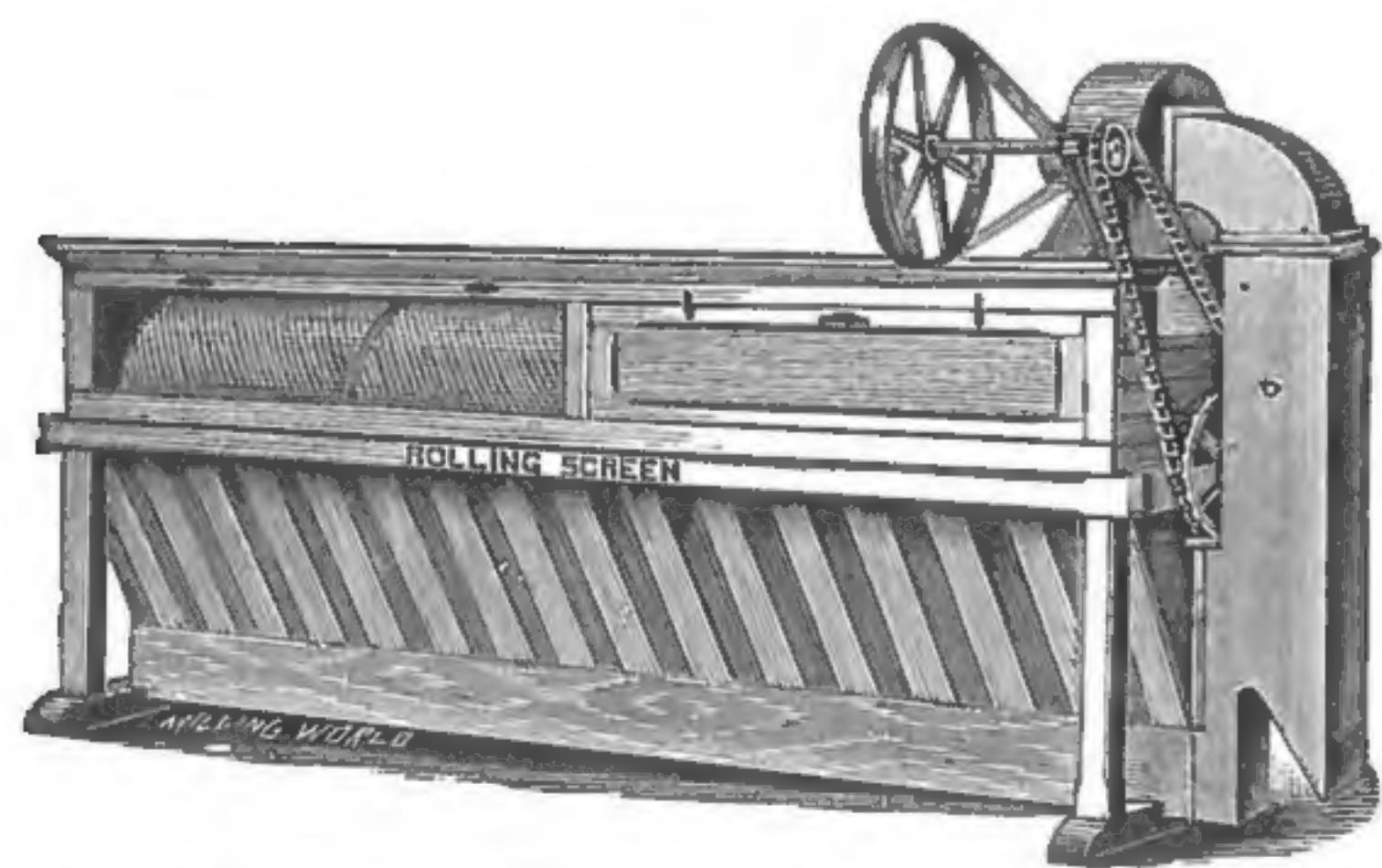
"The Rickerson." The original six inch 4 Roller Mill. We now own the patents on this mill and after greatly improving the mill manufacture them in four sizes:

6x12 inch.

6x18 inch.

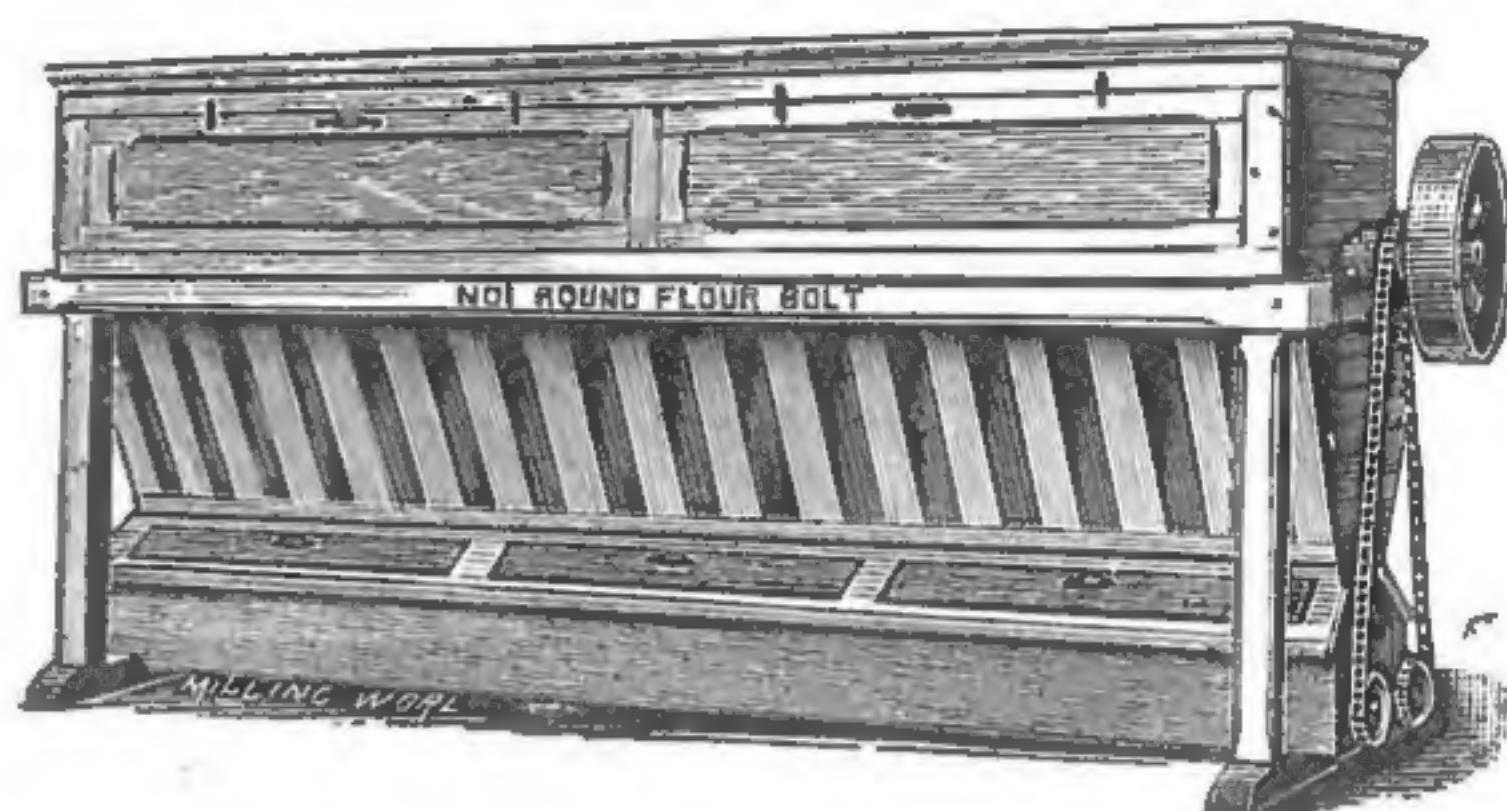
6x15 "

6x20 "

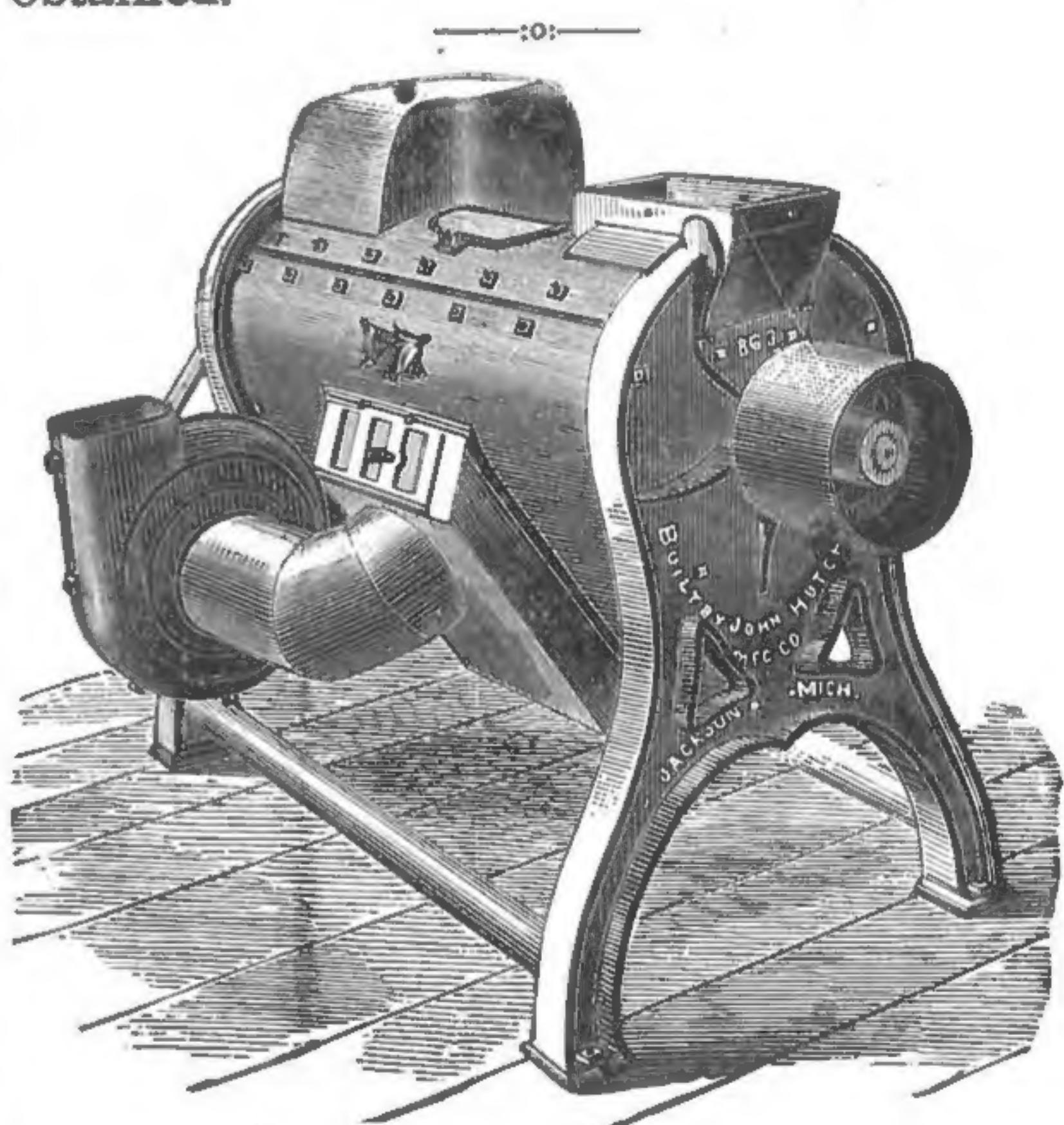


The above cut represents our New Rolling Screen, which is absolutely dustless and has as much scouring qualities as any two scouring machines now being made.

Send for Estimates for Our Full Roller Mills of any Capacity.



The above cut shows our New Round Slow Running Flour Bolt. We also build a Cylinder or Round Scalping Reel and we have lately built a number of new mills of medium capacity, using our Roller Mills, our Round Flour Bolts and Scalping Reels, getting better results than is usually obtained.



Hutchison's New Dustless Iron Corn Sheller, especially adapted for Mill and Elevator use.

—ADDRESS ALL CORRESPONDENCE TO:—

John Hutchison Mfg. Co.
JACKSON. - - - MICHIGAN.



CORRUGATIONS

What we know of corrugations can be found out by writing to US, or H. W. Caldwell, Chicago, Ill.

Stamping and Pressing of Sheet Metals for all Classes of Work. Also Tinning, Galvanizing and Japanning.

THE AVERY STAMPING CO.,

Cleveland, Ohio, U. S. A.

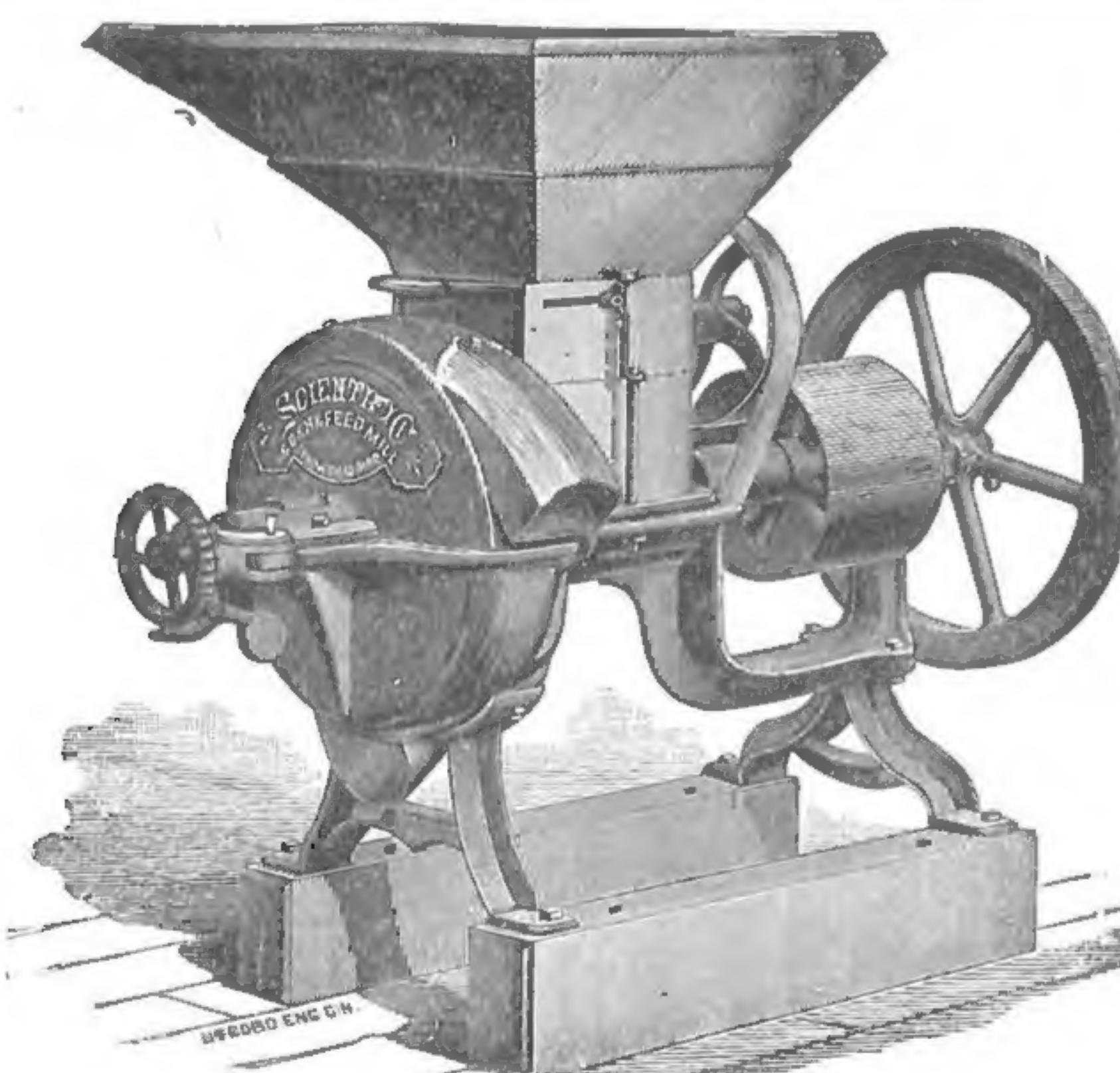
New York Office, 51 Cliff Street, HALL & NEAR, Agents.



SELF-TRAMMING PORTABLE MILL BEST GRINDING MILL MADE. BOLTING CLOTH AND BURR AND ESOPUS MILLSTONES

WRITE FOR DISCOUNTS.

SAMUEL CAREY,
17 Broadway, NEW YORK.



THE SCIENTIFIC GRINDING MILL.

POSITIVELY THE BEST MILL ON EARTH.
GRINDS PERFECTLY, FAR CORN, SHELL ED CORN,
AND ALL GRAINS.

GRINDING PLATES A SPECIAL METAL

Hard as Steel, Guaranteed to Grind from Five to Eight Thousand Bushels before wearing out.

SEND FOR ILLUSTRATED CATALOGUE, PRICES, ETC.

THE FOOS MFG. CO.
SPRINGFIELD, OHIO.

THE SALEM BUCKET STILL ON TOP!



—AND IS LIKELY TO—
HOLD ITS PLACE

As Leader of Buckets because it proves to be

—THE BEST—

And the cheapest in the long run after all. Send for New Catalogue and Revised Price List.

W. J. CLARK & CO., SALEM, OHIO.
THORNBURGH & GLESSNER, CHICAGO, ILL.